710 North

Mobility Hubs Plan

SCAG · Public Works Los Angeles County · LADOT · Cal State LA · alta

Acknowledgments

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This project was funded by the Caltrans Sustainable Transportation Planning Grant program.

Photo credit: ActiveSGV

Chapter 1

What are Mobility Hubs?
Includes the project background, the vision and goals of the project, and a summary of the existing conditions of the project area

Chapter 2

Where are we planning the hubs?
How the mobility hubs were planned with the help of community and stakeholder input

Chapter 3

What are the elements?
Concepts of each of the mobility hub locations and the amenities at each of them

Chapter 4

Implementing the hubs!
How the involved jurisdictions can work to successfully construct the mobility hubs

Executive Summary

The 710 North Mobility Hubs Plan is the result of a multi-jurisdictional initiative to improve mobility and the quality of life in the heavily congested region surrounding the northern end of the 710 Freeway. This Plan identifies 10 future mobility hub locations that can offer more transportation options, public spaces, and environmentally friendly features in the area bounded by Union Station in Downtown Los Angeles; the South Pasadena L (Gold) Line Station; the LA County Public Works headquarters in Alhambra; California State University, Los Angeles (Cal State LA); and the surrounding neighborhoods.

The project team for this Plan consisted of the Southern California Association of Governments (SCAG), LA County Public Works, Los Angeles Department of Transportation, and Cal State LA, along with key project partners including the City of South Pasadena, the City of Alhambra, and LA Metro.

Vision

Create mobility hubs that are attractive, accessible, and connected within the area surrounding the northern end of the 710 Freeway to provide residents, commuters, and employees with sustainable, affordable, and future-ready transportation options.

Goals

- **Accessibility:** Identify mobility hub locations that connect to the greater multimodal transportation network and are accessible to people using all modes.
- **Mode Shift:** Develop solutions that encourage residents, commuters, and employees to use sustainable and flexible modes of transportation, reducing vehicle miles traveled (VMT).
- **Equity:** Center the concerns and experiences of historically underserved communities within the planning process and co-create solutions that improve real, everyday transportation challenges.
- **Collaboration:** Collaborate with community members and agency partners to ensure proposed improvements are supported by all stakeholders.
- **Feasibility:** Develop solutions that are cost-effective and feasible to implement.

Key Takeaways and Next Steps

The final mobility hub locations were chosen through a process in which 56 initial locations were narrowed down based on equity, demand, first-and last-mile connections, and community input considerations. Conceptual plans with potential mobility hub amenities were created based on existing infrastructure and community feedback. We learned that community members want comfortable waiting areas at mobility hubs with seating and shade, and amenities like real-time transit arrival signs and free Wi-Fi. Additionally, the project team learned about the mobility challenges at each of the 10 hub locations and made active transportation recommendations to address these concerns for bicyclists and pedestrians. With the completion of the Plan, participating jurisdictions can begin applying for grant funding opportunities and coordinating with each other and local transit providers to implement the mobility hub amenities and active transportation improvements.

Chapter Summary

A mobility hub is a place where two or more travel options—walking, biking, transit, or shared mobility like Uber, Lyft, and bike and scooter share—come together to make it easier and more convenient for people to get where they need to go. Mobility hubs can include different amenities based on the community's needs, such as seating, bicycle and micromobility parking, wayfinding and information, and free Wi-Fi. The 710 North Mobility Hubs Plan reflects the interests of multiple jurisdictions working together to determine how mobility hubs can solve transportation challenges and align with related plans and projects in the region. **Chapter 1** of the Plan describes the project's background as well as the existing conditions of the mobility hub locations including an equity analysis and study of the existing active transportation infrastructure in the area.

To inform and engage the community, there were three rounds of community engagement, including pop-up events, workshops, and online tools like interactive maps and surveys. Additionally, a steering committee was formed with key project stakeholders to refine project ideas. **Chapter 2** further explains the community engagement process, including how the community and stakeholders chose the final 10 mobility hub locations.

The recommended amenities within each mobility hub, and the recommended first- and last-mile amenities leading to each hub, can be found in **Chapter 3**. While these designs are only at a planning level, they show how amenities can work together to make using all transportation modes safer and more convenient for residents and visitors.

Chapter 4 lists the recommended strategies for implementing the mobility hubs and the first- and last-mile recommendations, including quick-builds or pilot programs. This chapter describes the prioritization process of the first- and last-mile recommendations, in which the project team prioritized the mobility hub corridors to determine which recommendations should be implemented first. Recommended non-infrastructure programs and recommended federal and state funding sources are also listed in this chapter, which the appropriate jurisdictions can use to fund mobility hub implementation.

Mobility Hub Locations

The planning process began with 56 initial mobility hub locations identified for further study. Following the existing conditions and needs assessment, this number was refined to 21 potential mobility hub locations. After input from the steering committee and community members during the first round of outreach, the project team finalized the mobility hubs to these 10 locations (**Figure 1**):

1. **Broadway/Griffin Avenue:** This location is a commercial area with high pedestrian activity. There are high ridership bus stops at this location with dense and narrow buildings and residences. Buffered bike lanes lead to this location on Griffin Avenue.
2. **Chinatown Station:** This Metro rail station location has high bus and rail ridership. High-density commercial and residential spaces are nearby, as well as the Los Angeles State Historic Park to the north. Metro bike share is already in place at this location.
3. **Cal State LA Gateway:** This location, near the Cal State LA gateway sign at Valley Boulevard and Mariondale Avenue, features high bus ridership. Low-density housing and commercial buildings are nearby, and the Cal State LA campus is to the south.
4. **Daly Street/Main Street:** This location has commercial streets with a plaza at the street intersection. Blocks are short and have high pedestrian activity. The I-5 freeway is just west of the location.
5. **Huntington Drive/Monterey Road:** Huntington Drive is a wide arterial street where drivers tend to speed. The Los Angeles Fire Department Fire Station, Rose Hill Park, and a commercial area are near this location. Rose Hill Transit Center is nearby, which connects with four Metro bus lines and Metro Micro, a transit on-demand service. A public restroom is also already in place here.
6. **Main Street/Fremont Avenue:** Main Street is a main commercial street with high bus ridership. Located south of this location are major department stores and to the north and south are mid-density residences.
7. **Marengo Street/State Street:** The University of Southern California (USC) Health Sciences and LAC+USC Medical Center campuses are accessible from this location. Bus stops have high ridership, and a community recreation center is also nearby.
8. **Mission Street/Meridian Avenue:** This location has a Metro L (Gold) line stop and is a major commercial area. The blocks are short and have high pedestrian activity with community parks to the east and west of the intersection.
9. **Main Street/Palm Boulevard:** Several destinations are accessible at this location, including the Alhambra Hospital, Century High School, commercial areas with big box stores and grocery stores, Alhambra Park, and mid-density residences. There is high bus ridership at this intersection.
10. **Valley Boulevard/Fremont Avenue:** Valley Boulevard/Fremont Avenue: Valley Boulevard is a commercial street with high bus stop ridership. A community park is at this intersection, and there are hospitals to the north of this location. LA County Public Works and LA County Waterworks Districts are also accessible at this hub.

Figure 1: Mobility Hub Locations

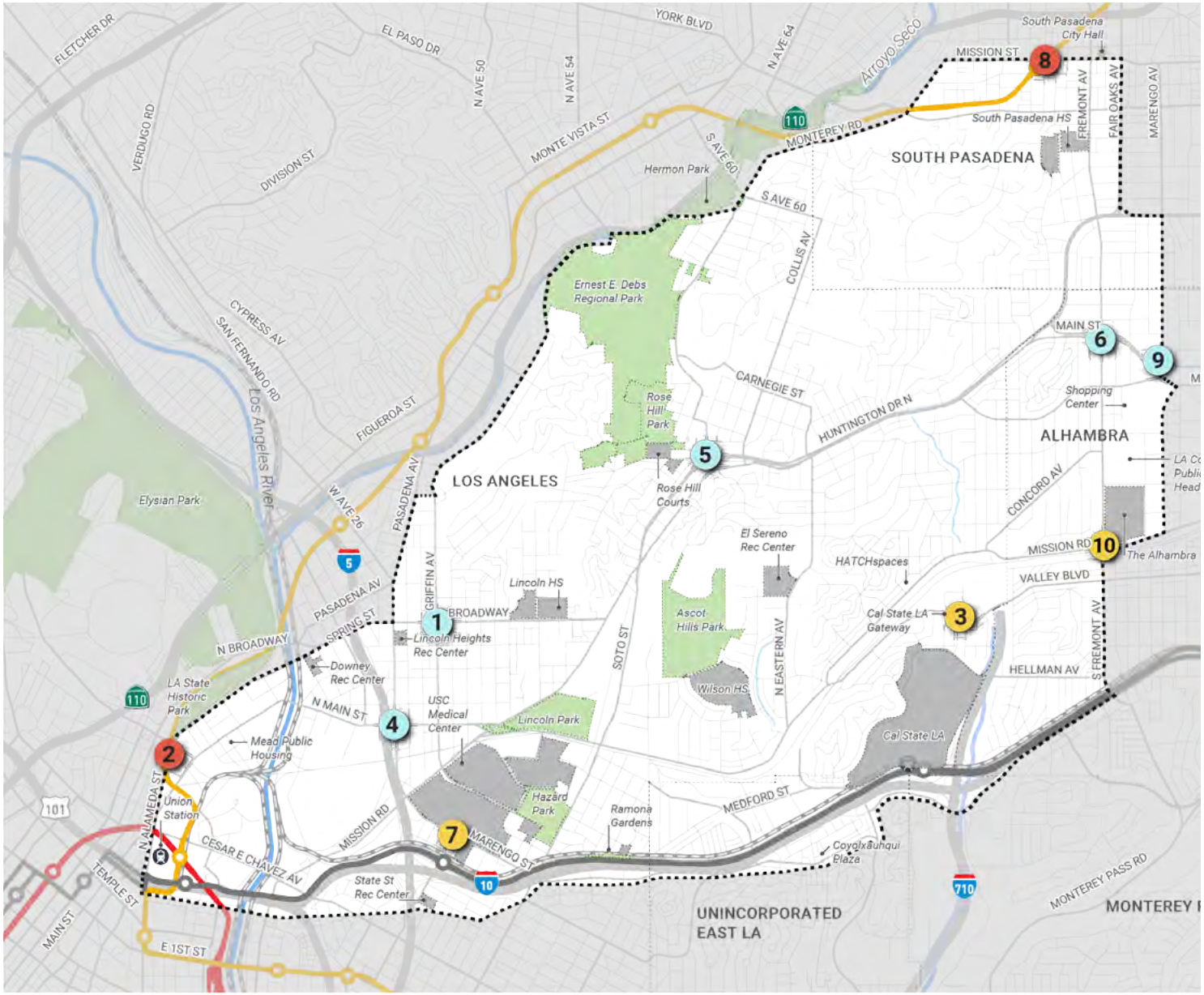
Selected Mobility Hub

- Typology 1: Bus Stop Mobility Hub
- Typology 2: Rail Station Mobility Hub
- Typology 3: Campus Mobility Hub

General Legend

Key Destinations

- Parks
- Recreation Centers, Higher Education, High Schools, Civic Centers, Medical Centers, Development Projects, & Public Housing Projects
- Study Area
- City Boundaries
- Metro B Line (Red)/ D Line (Purple)
- Metro L Line (Gold)
- Metro J Line (Silver)
- Metrolink



Prioritization and Cost Estimates

Based on a series of criteria determined by the project team and refined by the steering committee, the prioritization process scored each of the first- and last-mile recommendations per street corridor within 1/4- or 1/2-mile of the mobility hubs. The project team created these first- and last-mile recommendations so active transportation users have comfortable and safe access to the mobility hub locations. **Table 1** lists the top prioritized corridors with their cost estimates. Additional information on the prioritization criteria, the scores of the other corridors, and all cost estimates can be found in **Chapter 4** and **Appendix D**.

Table 1: Top Prioritized Corridors

Street Corridor	Estimated Total Cost	Mobility Hub
Broadway between Daly St and Gates St	$567,645	Broadway/Griffin
Valley Blvd between Mariondale Ave and Grand View Dr	$720,587	Cal State LA Gateway
Fremont Ave between Valley Blvd and Orange St	$773,952	Valley/Fremont
Mariondale Ave between Valley Blvd and Cal State LA Campus	$530,860	Cal State LA Gateway
Main St between Griffin Ave and Ave 19	$734,545	Daly/Main
Marengo St between Mission Rd and Chicago St	$828,409	Marengo/State
Mission St between Arroyo Dr and Park Ave	$962,993	Mission/Meridian
Valley Blvd between Grand View Dr and Edgewood Dr	$501,272	Valley/Fremont
Meridian Ave between El Centro St and Mission St	$60,450	Mission/Meridian


A mobility hub is a place where two or more travel options—walking, biking, transit, or shared mobility come together to make it easier and more convenient for people to get where they need to go.


Metro

Chapter 1

What are Mobility Hubs?

Project Area

The project area is generally bounded by Union Station in Downtown Los Angeles, the South Pasadena L (Gold) Line Station, the LA County Public Works headquarters in Alhambra, Cal State LA, and the surrounding neighborhoods. Other key destinations within the project area include the Chinatown L (Gold) line Station, the LAC+USC Medical Center campus, and Ernest E. Debs Regional Park. (**Figure 2**)

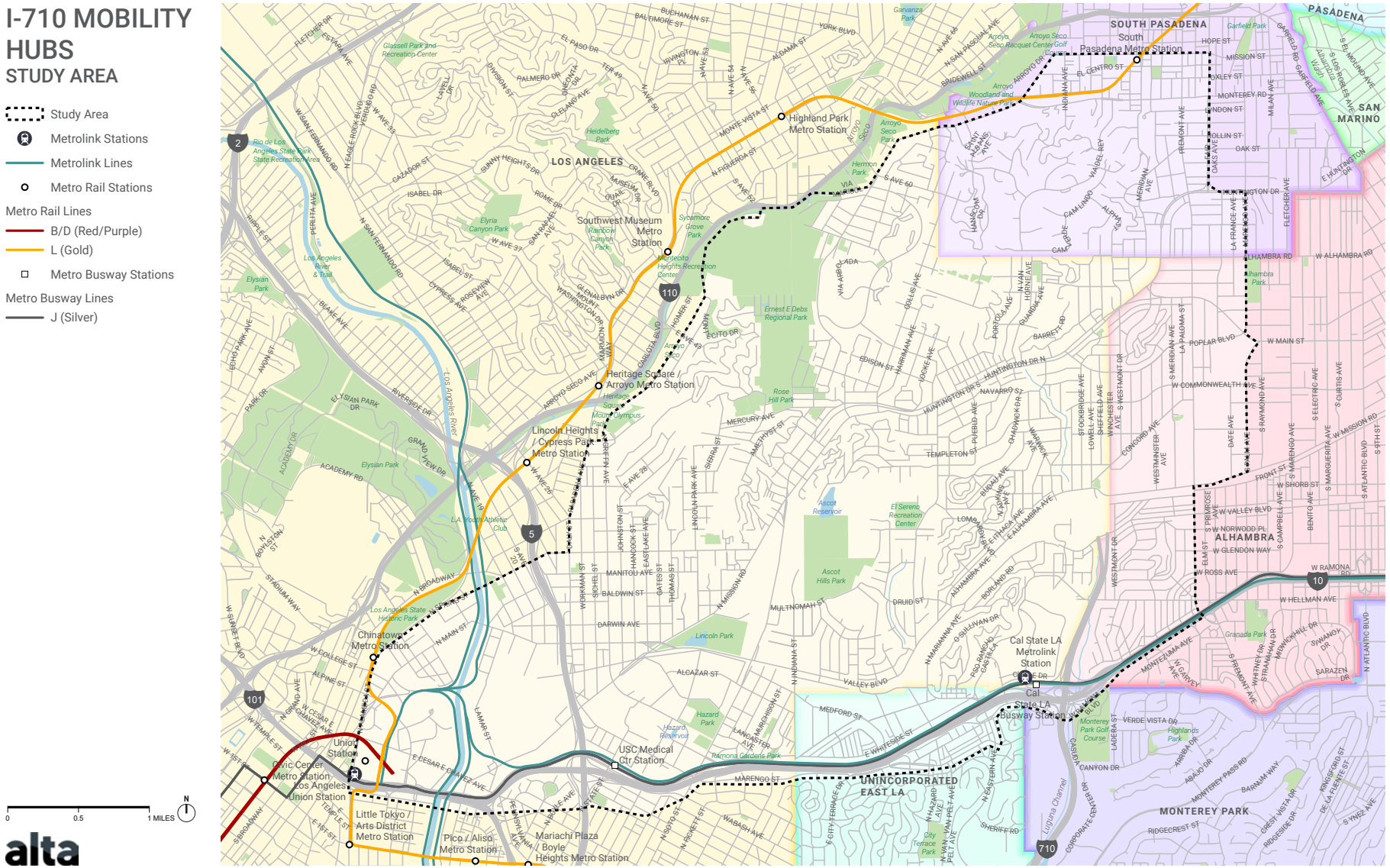
Project Background

In 2008, residents of Los Angeles County have voted to expand their public transportation systems with the passage of Measure R, and in 2016 with Measure M. Led by SCAG, the I-710 mobility hub project team was formed to address mobility needs at a regional level, study the availability of different transportation modes and supportive infrastructure, and consider future mobility trends.

Related Projects

In May 2017, the Metro board voted to withdraw its support and $3.2 billion in funding for completing the gap between the 210 and 710 Freeways. The board voted instead to reallocate the $900 million set-aside for the freeway project to local mobility projects. Several of these projects intersect the 710 North Mobility Hubs project area, including Valley Boulevard Multimodal Transportation Improvements,

Figure 2: Mobility Hub Study Area

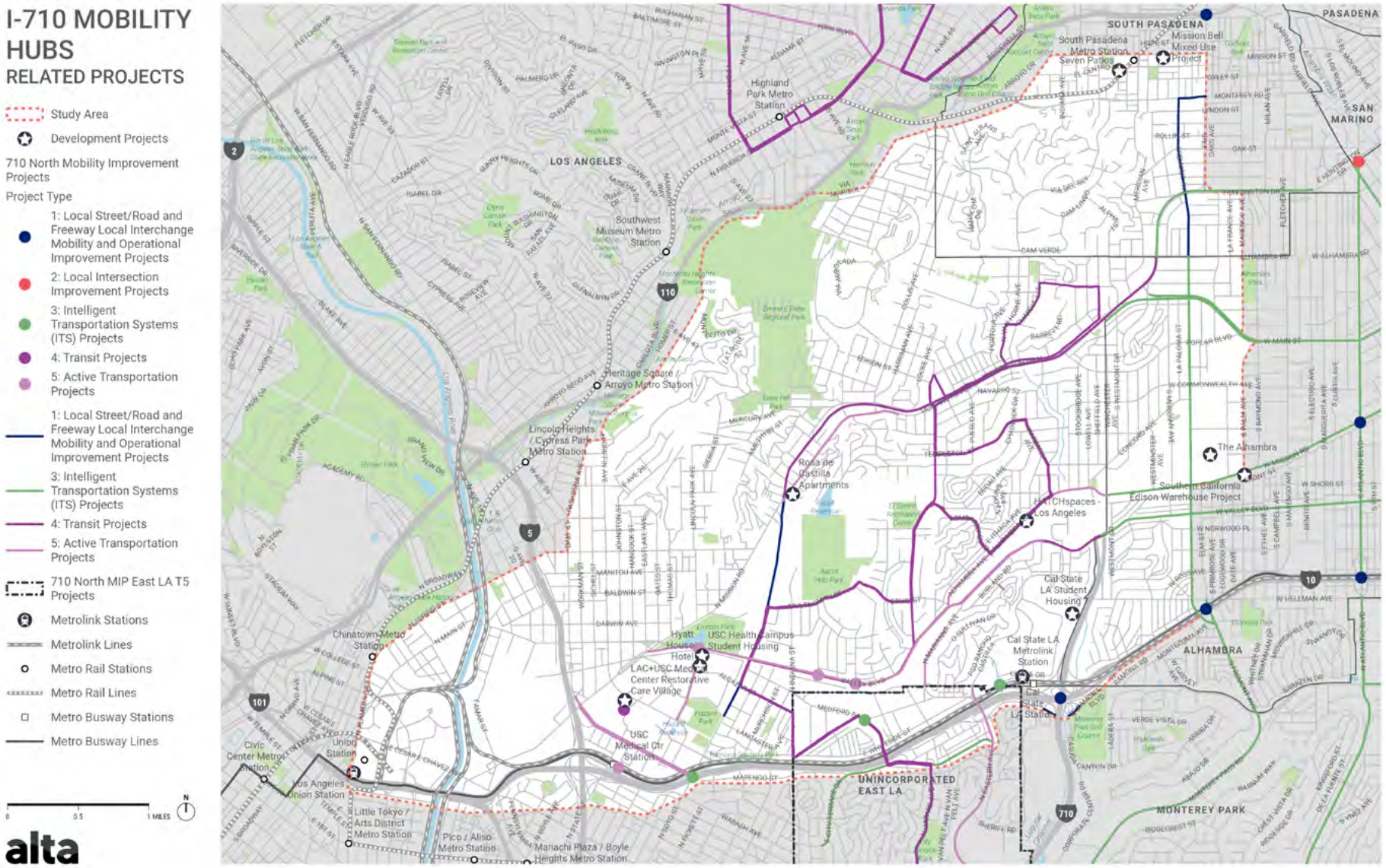


Huntington Drive Multimodal Transportation Improvements, Eastern Avenue Multimodal Transportation Improvements, DASH El Sereno/City Terrace Route Expansion and Bus Stop Enhancements, El Sereno Active Transportation Project and Transit Connectivity Enhancements, Northeast Los Angeles Active Transportation and Transit Connectivity Enhancements (all within the City of Los Angeles), and various traffic signal and other roadway improvements led by the Cities of Los Angeles, Alhambra, and South Pasadena. The County also has several active transportation projects that intersect the project area, including the East Los Angeles Mobility Hub Project, East Los Angeles Pedestrian Accessibility Improvements, East Los Angeles Vision Zero Enhancements, Micromobility Program, and Infrastructure Improvements, and Safe Routes to School Infrastructure Enhancements.

The San Gabriel Valley Council of Governments (SGVCOG) is also working with Metro to study and improve mobility in the San Gabriel Valley. The study is working to improve transit systems for the communities that need them most, while also considering the region's future growth.

Other related projects, including local streets and intersection projects within the project study area, are shown in **Figure 3**, and are described further in **Appendix A**.

Figure 3: Related Projects



Why are Mobility Hubs Important?

Mobility hubs provide transportation options that people can use without the need for a personal vehicle. Mobility hubs help reduce vehicle miles traveled (VMT)—a key goal for the region that supports congestion relief, sustainability, and public well-being.

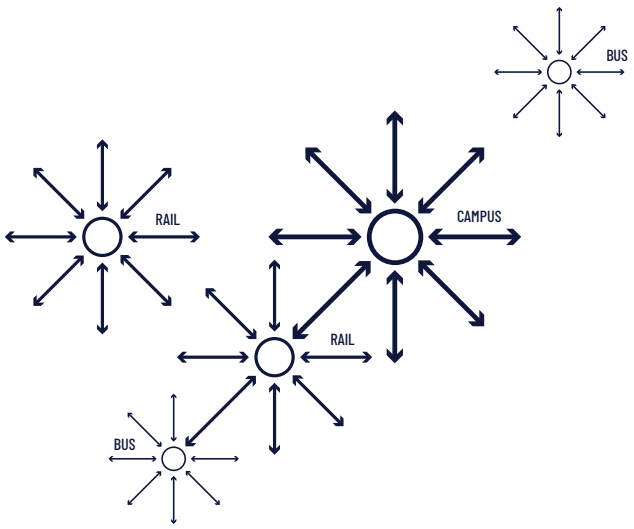
Transit stops and stations are the "front door" of transit and can either attract or deter users based on how they are configured and designed. Well-designed stops with basic amenities such as shelters and benches improve perceptions of transit service and help bolster ridership. Hubs that integrate multiple transportation modes help make transferring more seamless for the rider, improving the overall transit experience. As the first place most people interact with the transit system, transit stops undoubtedly play a crucial role in attracting and retaining riders.

What is a Mobility Hub?

A mobility hub is a place where two or more travel options—walking, biking, transit, or shared mobility like Uber, Lyft, and bike and scooter share—come together to make it easier and more convenient for people to get where they need to go. Mobility hubs can refer to major transportation centers like Union Station or The Bloc in Downtown Los Angeles, or small bus stops with features like secure bicycle parking or bicycle share. Mobility hubs help solve transportation challenges as stand-alone facilities but function best as a network of hubs. These sites exist at different sizes and scales and are responsive to the context and needs of surrounding neighborhoods.

As shown in **Figure 4**, smaller mobility hubs can link to the amenities at the larger hubs, while still providing resources for community members.

Figure 4: Mobility Hub Connections



Elements of Mobility Hubs

Mobility hub amenities can be mixed and matched to create spaces customized to suit every location. Elements of mobility hubs can include:

- **Shelter**: Shelters protect people from the elements while waiting for their transportation.
- **Curbside Management**: Curbside management strategies like designated pick-up/drop-off areas, delivery zones, bus boarding zones, green stormwater infrastructure, and pedestrian-friendly design elements like curb extensions create safe and efficient spaces for the use of active and shared modes.
- **Parking for Multimodal Options** : Places with ample car parking can encourage people to drive. Mobility hubs should therefore be designed to incentivize people to walk, bike, or use shared mobility by providing parking space for these modes. Strategies include providing secure parking for bicycles; offering adequate electric charging infrastructure for personal and shared vehicles, bicycles, and scooters; and limiting the availability of parking for personal vehicles.
- **Wayfinding and User Information**: Mobility hubs can include enhanced wayfinding elements such as digital kiosks, branding, and signage to help direct users to different transportation options and key destinations. Since mobility hubs are often locations where two or more transit routes intersect, it is important for riders transferring to easily be able to find their next stop. These elements can allow users to plan their multimodal trips, access Wi-Fi service, view real-time transit information, and make payments for various shared multimodal options.
- **Shared Vehicles and Micromobility Devices**: Including services for shared vehicles and micromobility devices (such as bike shares, scooter shares, and car shares) at mobility hubs provides users with a range of transportation options for their trip, allowing them to leave their personal vehicles at home.
- **Self-Repair Stations**: Bicycle self-repair, or fix-it, stations offer an additional amenity for bicyclists at mobility hubs. Bicycle fix-it stations are typically located near secure bicycle parking.
- **Placemaking Elements**: Placemaking opportunities like landscaping, seating, lighting, art, and other amenities help make mobility hubs inviting and comfortable for community members. Amenities should reflect the local community's history and character.

Types of Mobility Hubs

There are three types of mobility hubs in this Plan: bus stop mobility hubs, rail station mobility hubs, and campus mobility hubs (**Figure 5**).

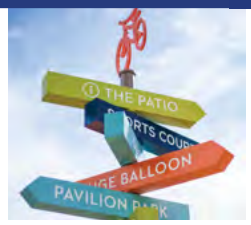
Figure 5: Amenity Options

1 Bus Stop Mobility Hub


Bike share


Short-term bike parking


Seating



Wayfinding

Amenities will depend on the specific location (e.g., not all Type 1 Hubs will have the same amenities).


Micro-mobility parking

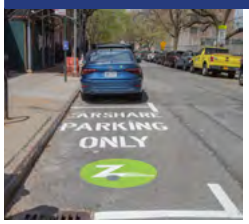
Free wi-fi


Pedestrian-scaled lighting


Shade and shelter

2 Rail Station Mobility Hub

(includes all amenities from the bus stop mobility hub plus...)



Car share parking


Bike repair station


Information kiosk


Real-time arrival signs


Vending Machines


Electric vehicle charging

Passenger pick up and drop off


Public art installation

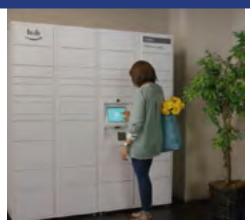

Long-term bike parking

3 Campus Mobility Hub

(includes all amenities from the rail station mobility hub plus...)

Grab and Go Food Market

Convenience store


Delivery locker


Exercise playground


Work station


Work station


Work station


Campus kiosk

Existing Conditions

The project team used existing conditions data to identify the highest need areas for mobility hub improvements. The data helped to identify mobility hub locations and to inform the development of evaluation criteria to prioritize future mobility hub locations. **Appendix A** lists additional existing conditions information, like collision, demographics, and shared mobility data.

Equity

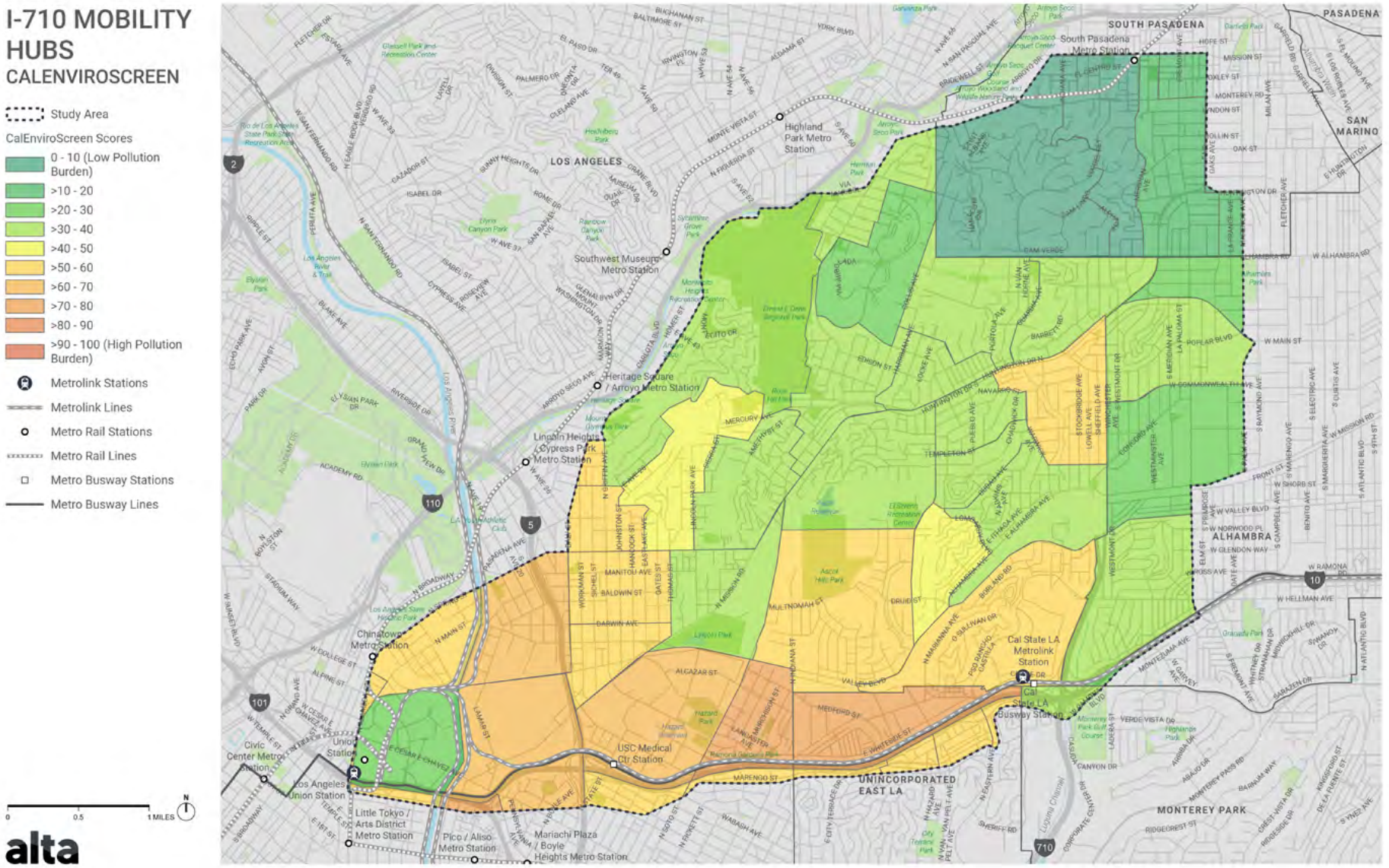
Mobility hub improvements provide the greatest benefit in areas with environmental and health disparities, connected bike networks, and high transit ridership. Data from two equity-related indices, CalEnviroScreen and the California Healthy Places Index help to identify communities where pollution and other unhealthy community conditions disproportionately burden people. Both of these tools identify the area near the 710/10 Freeway interchange and east of Union Station as the most disadvantaged community in the project area. Residents here face poorer health outcomes and have fewer health resources compared to other California communities. (**Figure 6**)

The 710 Freeway abruptly ends in the San Gabriel Valley, creating heavy traffic congestion in the area. Trucks loaded with cargo from the Ports of Long Beach and Los Angeles take the 710 Freeway to stores and factories across the county, and thousands of commuters drive on the freeway every day to get to school, work, and other destinations. The heavy traffic volumes on the freeway negatively impact the air quality in the area and affect public health.

At Cal State LA, 88.5% of undergraduate students have demonstrated financial need, and 72% are low income.[1] Over 3,500 college students participate in Metro's U-Pass program for reduced-fare transit.

1 Gomez, Espinoza, Sonenshein, & Fuhrmann 2019.

Figure 6: CalEnviroScreen



Existing Bikeways

In the project area, there are Class I, Class II, Class III, and Class IV bikeways. Class I facilities are shared-use paths that pedestrians and cyclists can utilize; in the local area, these paths are often located along waterways. Class II bikeways are standard striped bike lanes, while Class IV bikeways are on-street facilities with physical separation from moving automobile traffic. Class III bikeways are designated bike routes on streets shared with motor vehicle traffic.

In addition to the existing network, there are several proposed bikeways in the study area, including Class I, Class II, Class III, and Class IV bikeways. When built, these bikeways will provide access to transit, parks, and neighborhood shops and services, and will close gaps in the separated bikeway network. These existing and previously proposed bikeways can be seen in **Figure 7**.

Photo credit: ActiveSGV

Transit Ridership

Within the project area, there are several public transit networks (**Figure 8**). Metro Rail (light rail and heavy rail) services include the L (Gold) Line at Union Station and South Pasadena stations and the B (Red) and D (Purple) Lines at Union Station. Bus rapid transit (BRT) service includes the Metro J (Silver) Line and Foothill Transit Silver Streak. The San Bernardino Line at the Cal State LA Station provides Metrolink (commuter rail) services in the project area.

Metro, Foothill Transit, Los Angeles Department of Transportation's DASH and other local municipal transit providers provide local bus service. Metro bus services primarily provide connections to the west, north, and south of the project area to Los Angeles and other cities. Foothill Transit services connect the project area from Union Station to San Gabriel Valley communities to the east. DASH buses primarily serve the project area within the City of Los Angeles, with connections to East Los Angeles. Detailed transit route information is available in **Appendix A**. This transit route information is current as of the writing of this Plan, but is subject to change as transit lines are updated and replaced.

Transit ridership is highest in the southwest corner of the project area near Union Station. LA Metro Bus ridership is also high near the LAC+USC Medical Center on Marengo Street, near Cal State LA, and at the intersection of Huntington Drive and Monterey Road. Municipal Transit Agency boardings are highest in the center of the project area along Multnomah Street, Lombardy Boulevard, Templeton Street, and Huntington Drive. (**Figure 9**).

Figure 7: Existing and Proposed Bikeways

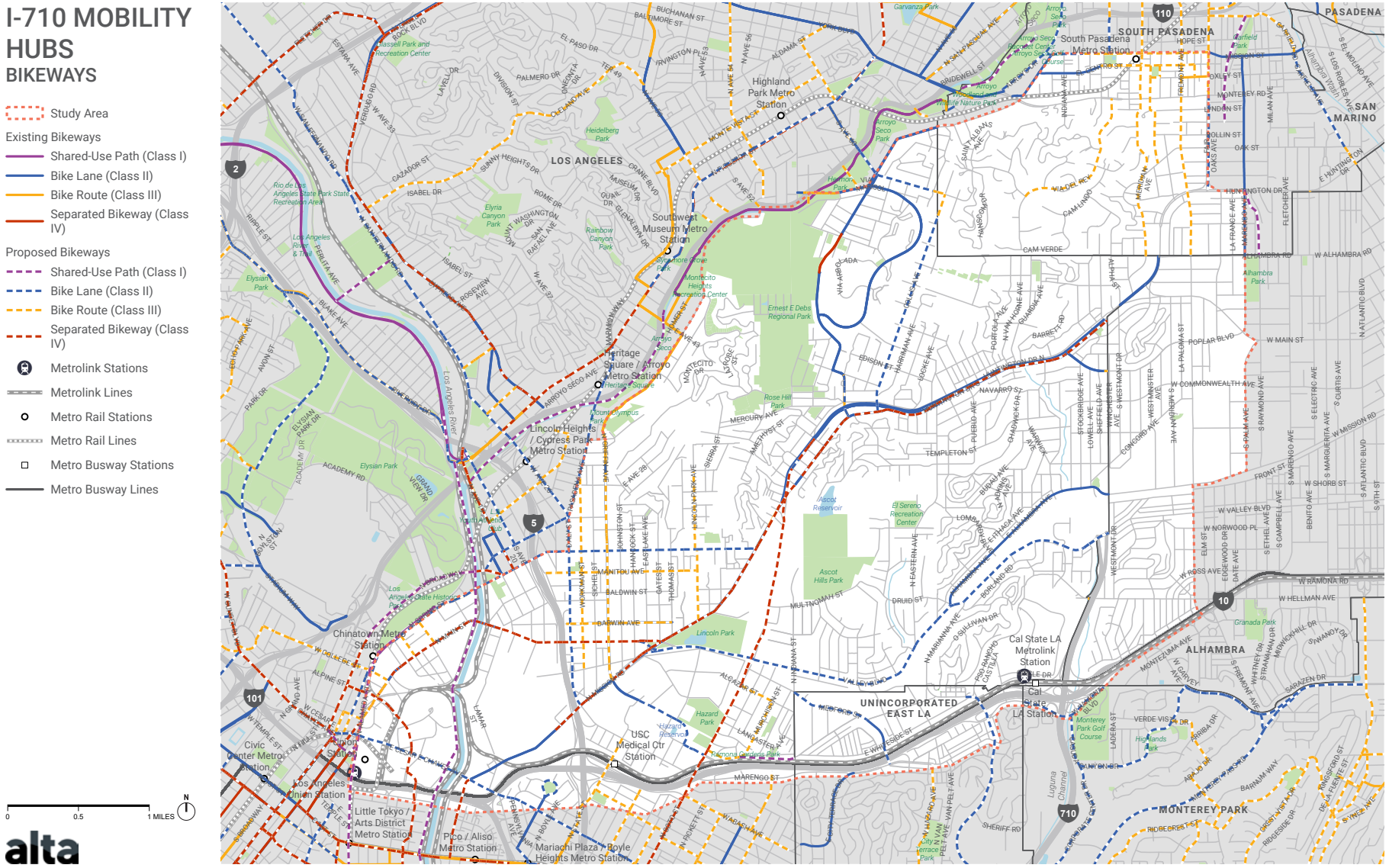


Figure 8: Transit Services

I-710 MOBILITY HUBS

TRANSIT SERVICES

- Study Area
- Foothill Transit Routes
- DASH Routes
- Metro Local Routes

Metro Micro Service Area

- Highland Park/Eagle Rock/ Glendale

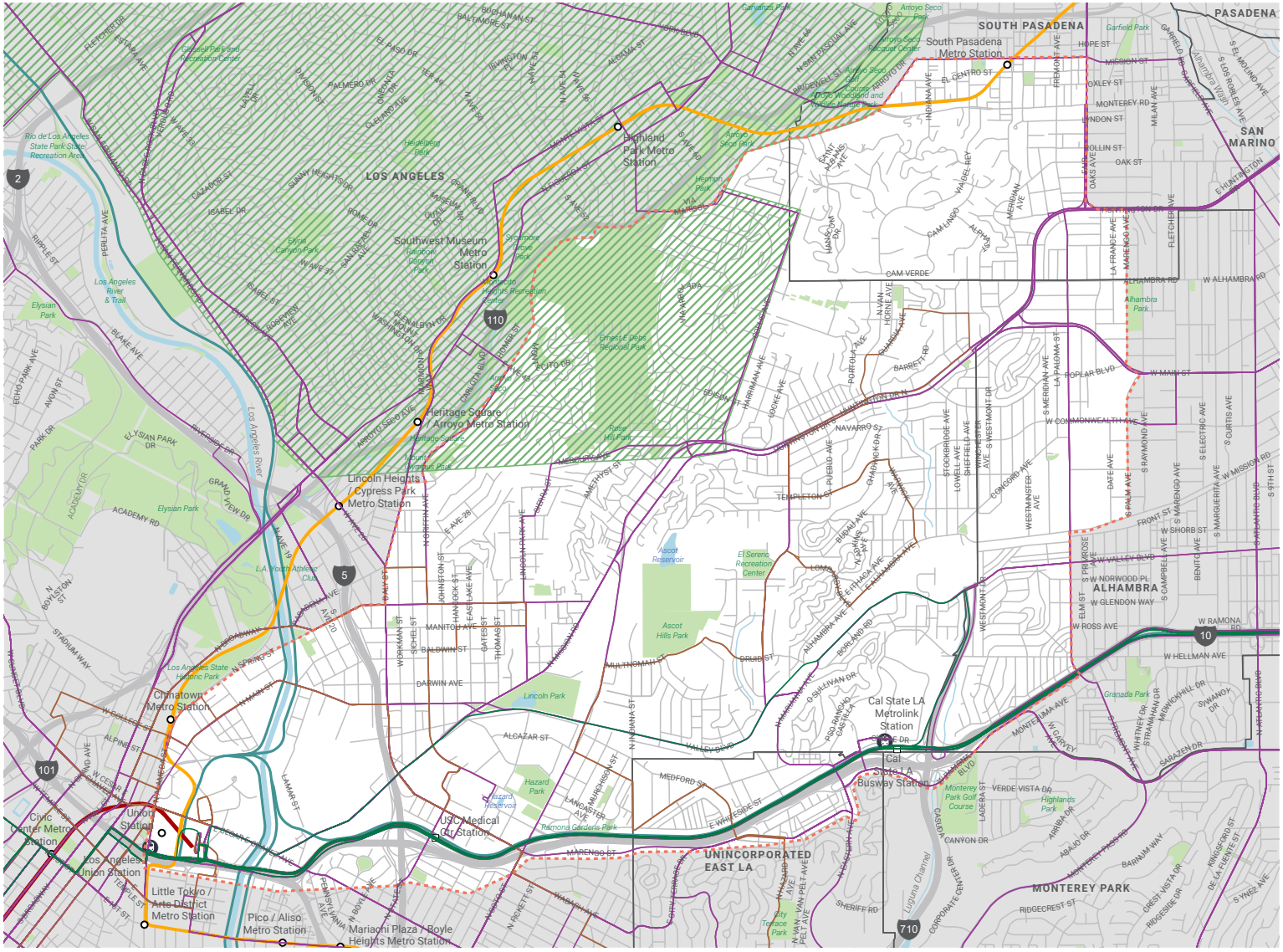
- Metrolink Stations
- Metrolink Lines
- Metro Rail Stations

Metro Rail Lines

- B/D (Red/Purple)
- L (Gold)
- Metro Busway Stations

Metro Busway Lines

- J (Silver)



0 0.5 1 MILES N

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Figure 9: Transit Ridership

I-710 MOBILITY HUBS
BUS RIDERSHIP

Study Area

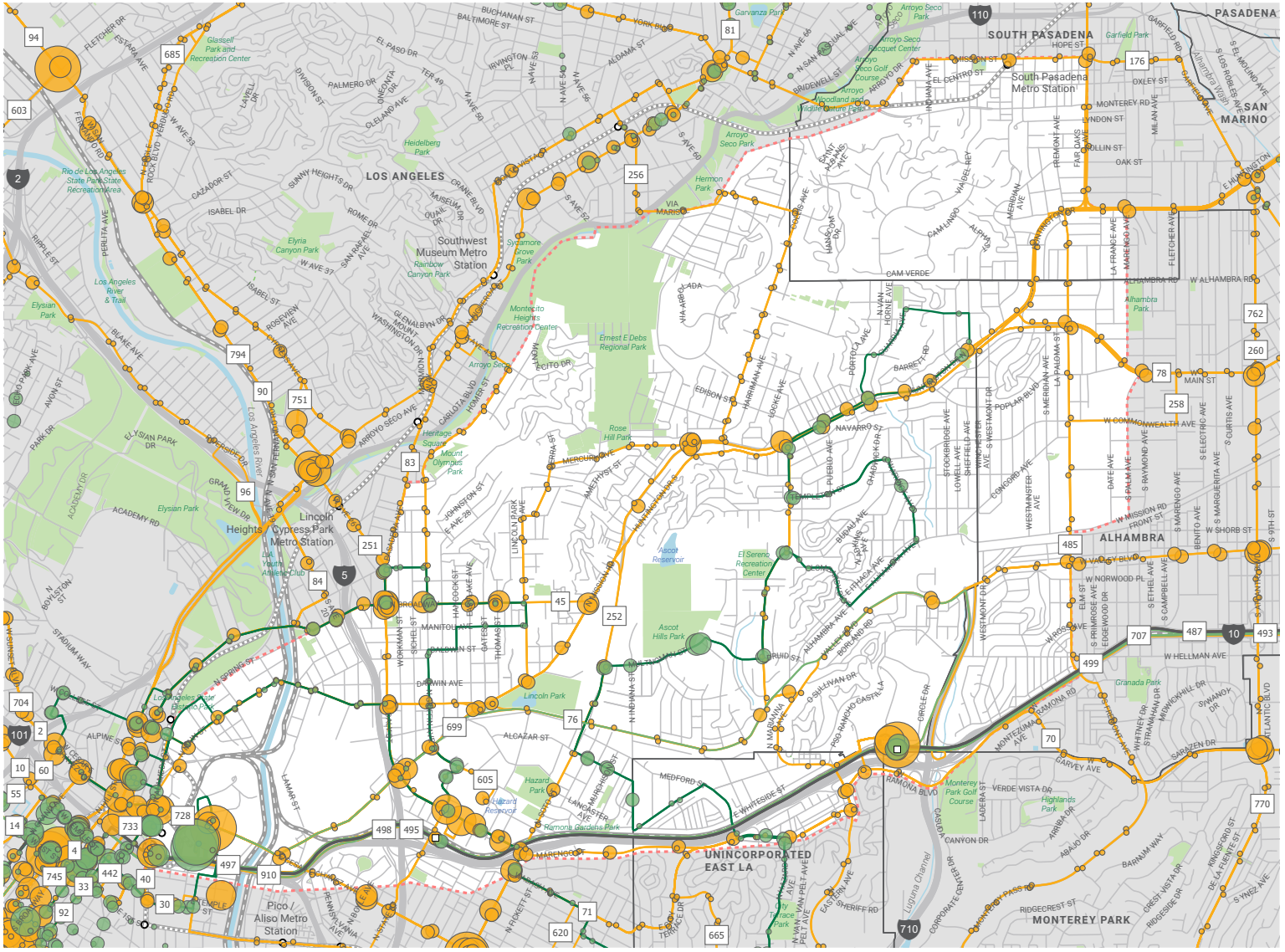
LA Metro Bus Boardings
- 0-50
- >50-200
- >200-500
- >500-1000
- >1000-2500

Municipal Transit Agency Boardings
- 0-50
- >50-200
- >200-500
- >500-1000
- >1000-2500

- Foothill Transit Routes
- DASH Routes
- Metro Local Routes
- Metro Busway Stations

Metro Busway Lines
- J (Silver)

- Metrolink Stations
- Metrolink Lines
- Metro Rail Stations
- Metro Rail Lines



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Refining the Mobility Hubs

Mobility hubs should be located where high demand for access to transportation exists and where there are local destinations and nearby transit stops. Locating mobility hubs near transit stops increases connectivity and ensures that people who lack access to personal automobiles can reach their final destinations.

In order to choose the 10 priority mobility hub sites to study further, the project team went through a process that included identifying 56 initial mobility hub sites based on transit ridership and need. These initial sites were grouped together into 21 mobility hub zones based on hub location, and with the help of community engagement and steering committee feedback, these initial hubs were narrowed to 10 priority hubs.

Initial Hubs

To identify the initial mobility hub locations, the project team first looked at sites with rail/BRT stations, transit stops with high bus ridership, transit stops that serve key destinations, and areas identified by the steering committee and community survey. Initial mobility hub locations included areas that met any of these criteria, resulting in 56 initial potential mobility hubs.

The second step involved cross-checking areas of high need with the initial 56 mobility hub locations. This step ensured that the project team recommended mobility hubs in areas where they would best serve active transportation users that are transit-dependent, and who may benefit from having access to multiple modes of transportation. The project team used four categories to determine areas of high need for mobility hubs:

- Equity
- Demand
- First- and last-mile connections
- Community input

These categories were mapped and given a score based on selected criteria. **Appendix B** has more information about the criteria for each category. **Figure 10** shows the initial 56 mobility hub locations and the composite scores of the need categories.

Figure 10: Initial Mobility Hub Locations

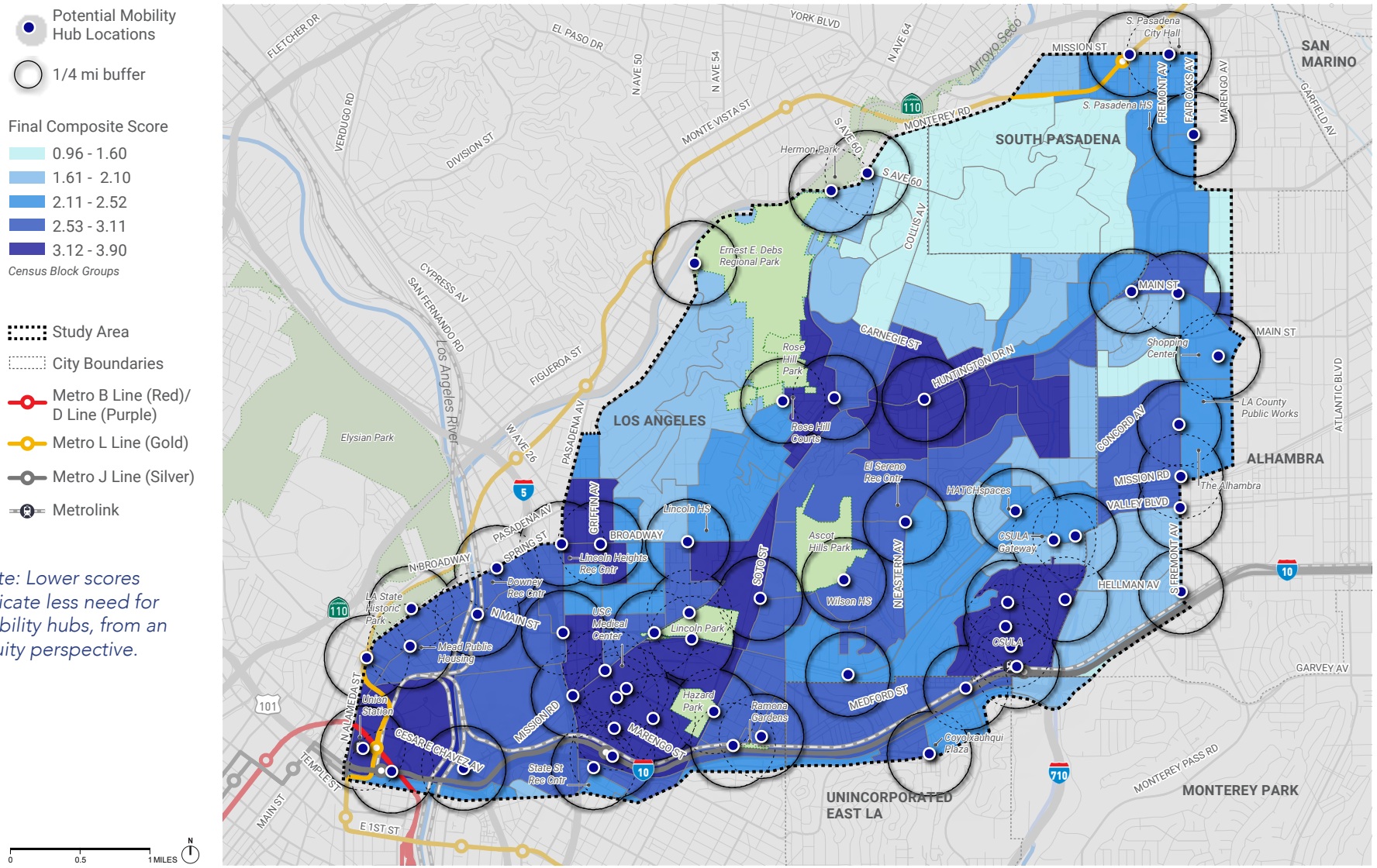
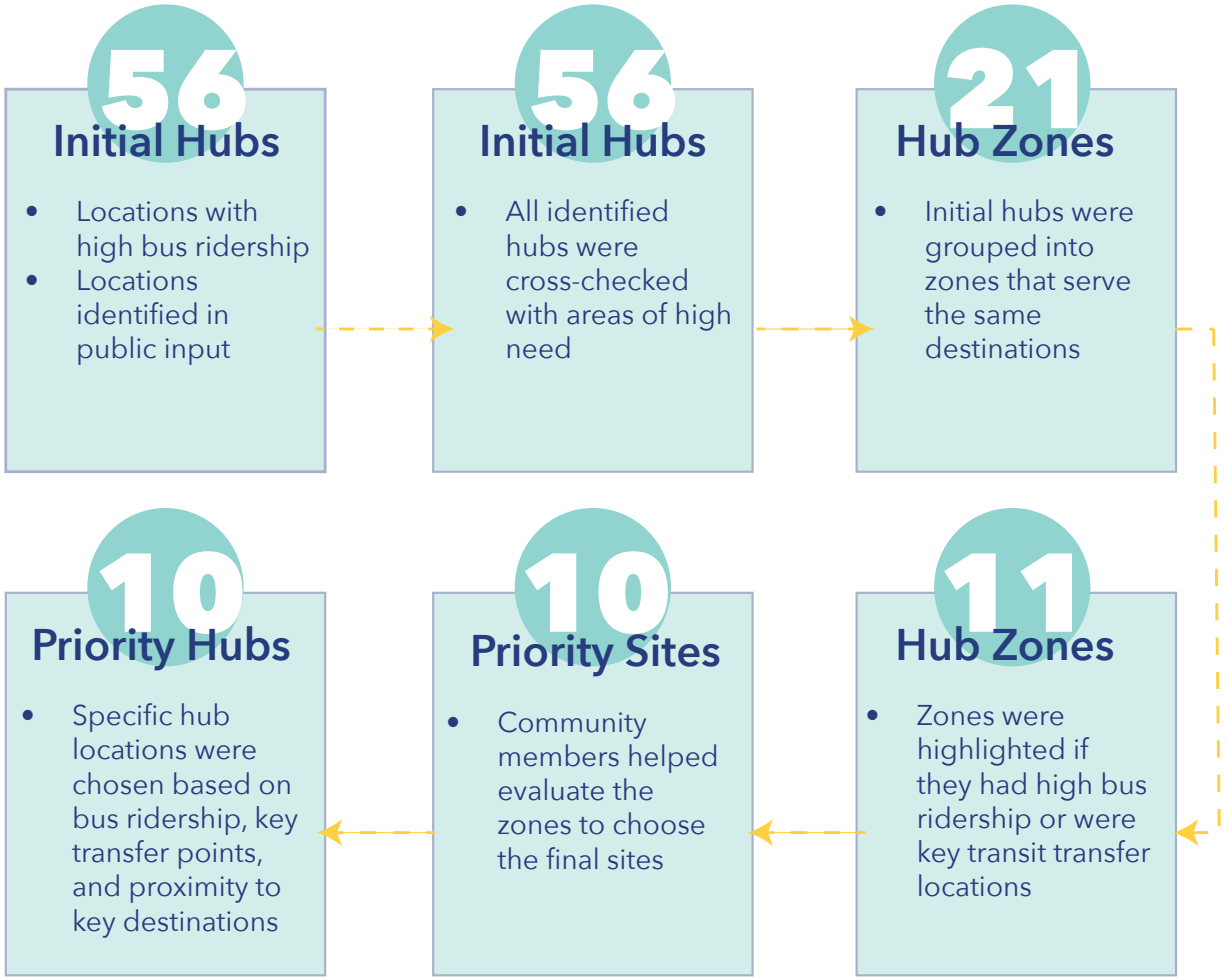


Figure 11: The Mobility Hub Refinement Process



Mobility Hub Zones

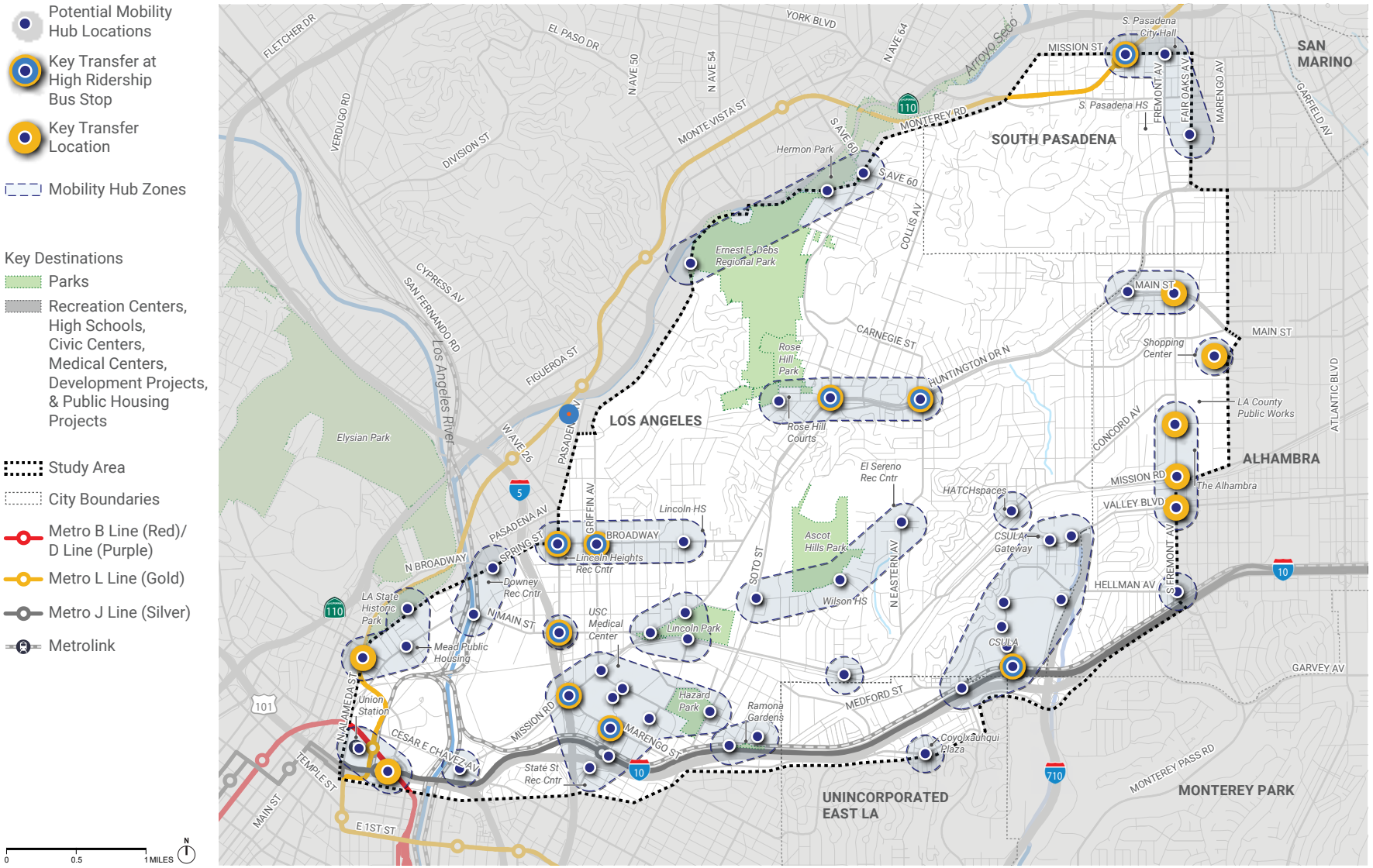
To organize and prioritize the initial mobility hub locations, the team grouped the initial hubs into zones, or clusters, of mobility hubs that serve the same destination or neighborhood, resulting in 21 zones. Selecting the 10 priority mobility hub locations within each zone first involved narrowing down the 21 mobility hub zones themselves. To do this, mobility hub zones were highlighted if the zone contained a high bus ridership station or was located at a key transit transfer location. The project team narrowed the 21 zones to 11 zones as shown in **Figure 12**.

Priority Mobility Hubs

Through meetings and outreach, the steering committee and community members evaluated the initial hubs in the 11 zones and, based on qualitative considerations, narrowed the initial hubs to 10 priority hub sites. Specific mobility hub locations within each zone were determined by selecting the locations that either have high bus ridership or are key transfer points. If there were multiple locations within the zone that fell into either of those categories, the team selected locations based on proximity to key destinations.

The 10 priority hubs in this Plan can serve as examples of the types of amenities that can fit at a mobility hub, the first- and last-mile infrastructure needed to access the hubs, and the recommended methods of implementation. This Plan includes detailed recommendations for the 10 priority hubs that best serve transit users in areas of need; however, all 56 initial sites can be studied in future analyses to determine if additional mobility hubs can benefit the region.

Figure 12: Mobility Hub Zones



Mobility Hub Locations

The 10 priority mobility hub locations are (**Figure 13**):

1. **Broadway/Griffin Avenue:** This location is a commercial area with high pedestrian activity. There are high ridership bus stops at this location with dense and narrow buildings and residences. Buffered bike lanes lead to this location on Griffin Avenue.
2. **Chinatown Station:** This Metro rail station location has high bus and rail ridership. High-density commercial and residential spaces are nearby, as well as the Los Angeles State Historic Park to the north. Metro bike share is already in place at this location.
3. **Cal State LA Gateway:** This location, near the Cal State LA gateway sign at Valley Boulevard and Mariondale Avenue, features high bus ridership. Low-density housing and commercial buildings are nearby, and the Cal State LA campus is to the south.
4. **Daly Street/Main Street:** This location has commercial streets with a plaza at the street intersection. Blocks are short and have high pedestrian activity. The I-5 freeway is just west of the location.
5. **Huntington Drive/Monterey Road:** Huntington Drive is a wide arterial street where drivers tend to speed. The Los Angeles Fire Department Fire Station, Rose Hill Park, and a commercial area are near this location. Rose Hill Transit Center is nearby, which connects with four Metro bus lines and Metro Micro, a transit on-demand service. A public restroom is also already in place here.
6. **Main Street/Fremont Avenue:** Main Street is a main commercial street with high bus ridership. Located south of this location are major department stores and to the north and south are mid-density residences.
7. **Marengo Street/State Street:** The University of Southern California (USC) Health Sciences and LAC+USC Medical Center campuses are accessible from this location. Bus stops have high ridership, and a community recreation center is also nearby.
8. **Mission Street/Meridian Avenue:** This location has a Metro L (Gold) line stop and is a major commercial area. The blocks are short and have high pedestrian activity with community parks to the east and west of the intersection.
9. **Main Street/Palm Boulevard:** Several destinations are accessible at this location, including the Alhambra Hospital, Century High School, commercial areas with big box stores and grocery stores, Alhambra Park, and mid-density residences. There is high bus ridership at this intersection.
10. **Valley Boulevard/Fremont Avenue:** Valley Boulevard/Fremont Avenue: Valley Boulevard is a commercial street with high bus stop ridership. A community park is at this intersection, and there are hospitals to the north of this location. LA County Public Works and LA County Waterworks Districts are also accessible at this hub.

Figure 13: Priority Mobility Hub Locations

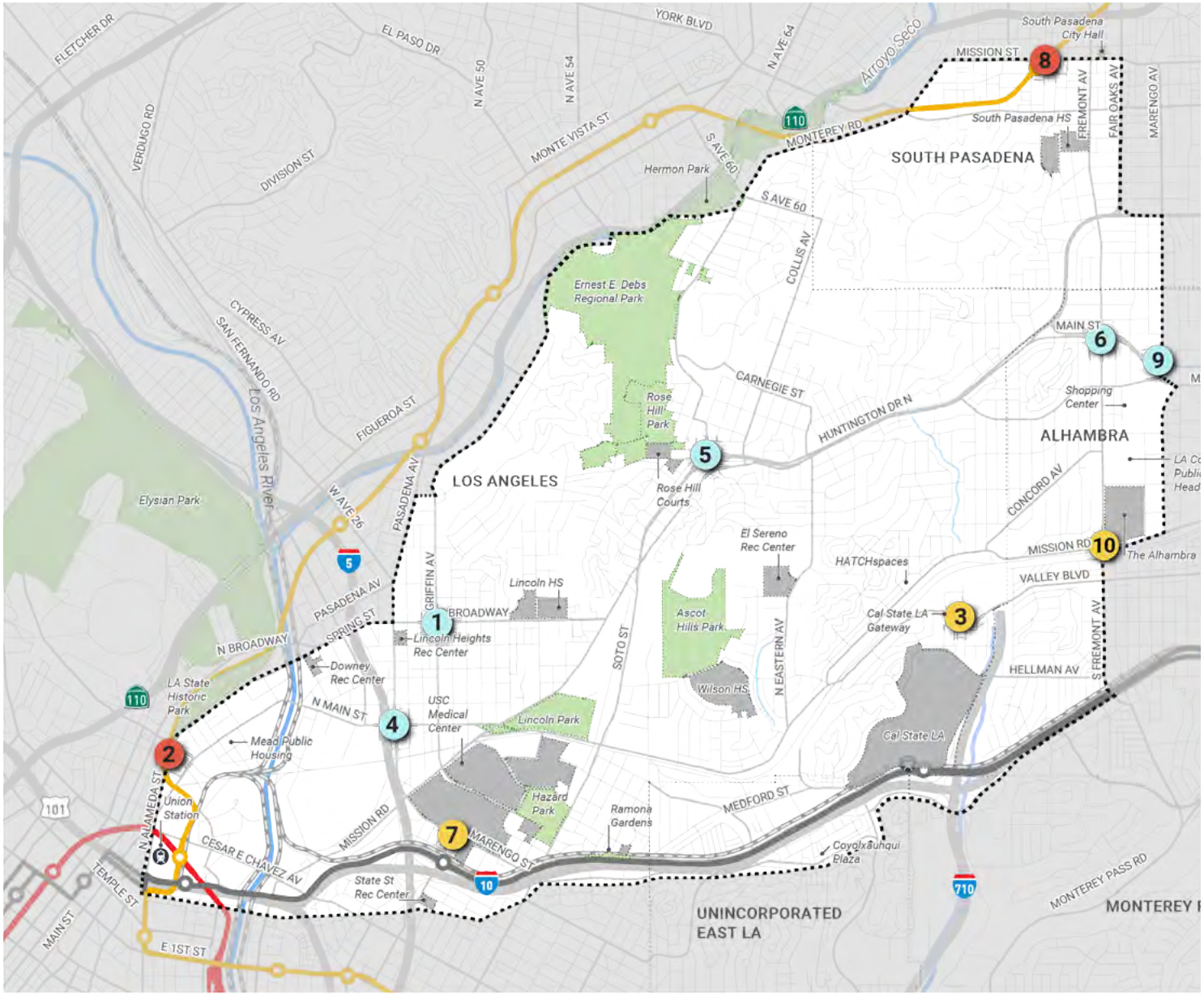
Selected Mobility Hub

- Typology 1: Bus Stop Mobility Hub
- Typology 2: Rail Station Mobility Hub
- Typology 3: Campus Mobility Hub

General Legend

Key Destinations

- Parks
- Recreation Centers, Higher Education, High Schools, Civic Centers, Medical Centers, Development Projects, & Public Housing Projects
- Study Area
- City Boundaries
- Metro B Line (Red)/ D Line (Purple)
- Metro L Line (Gold)
- Metro J Line (Silver)
- Metrolink



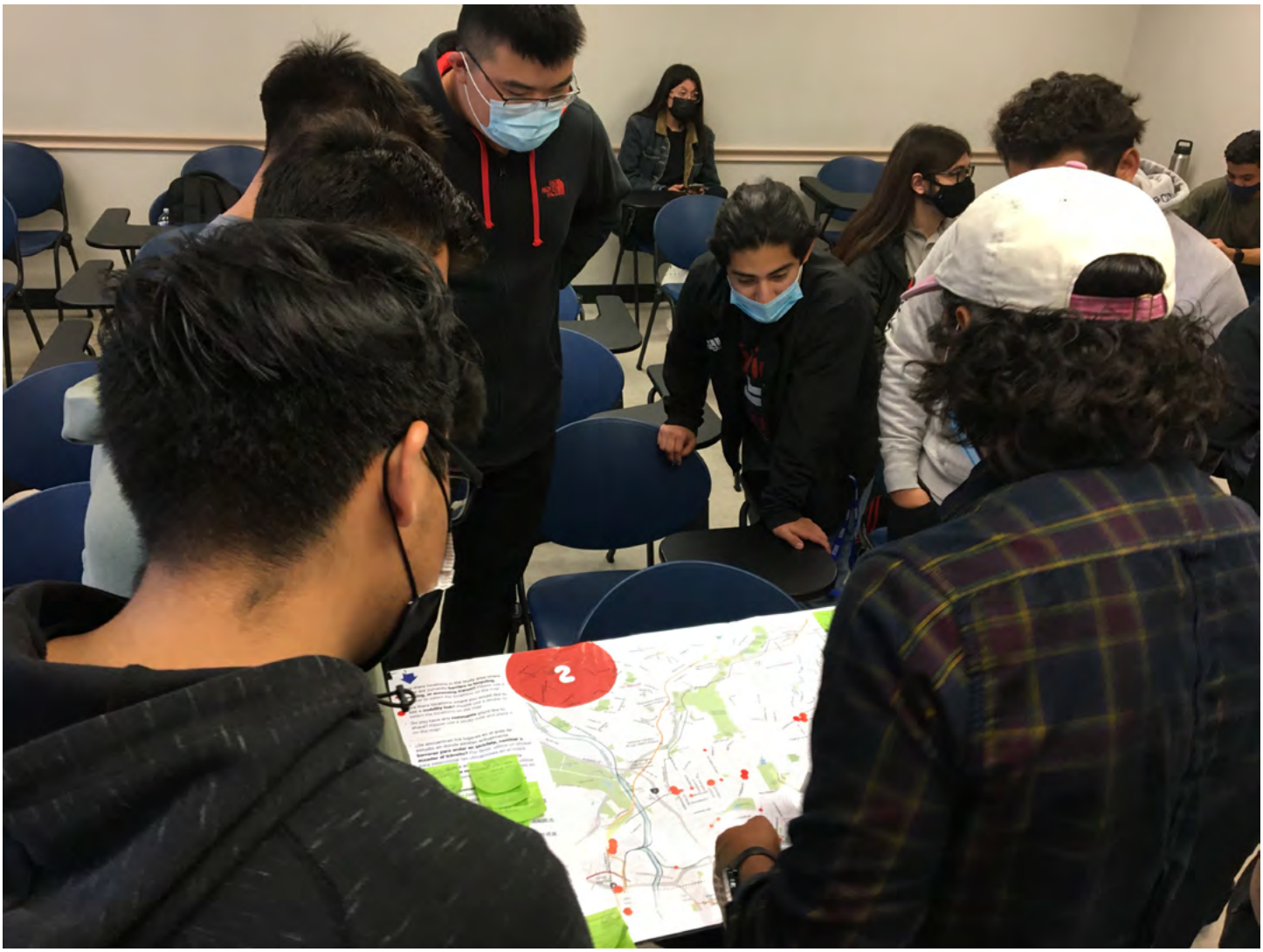

At my Mobility Hub, I'd most like to see...
Mobility Hub Typologies
1
2
What are mobility hubs?
Mobility Hub Map
SOUTH PASADENA
ALHAMBRA
LOS ANGELES
MONTEREY PARK
UNINCORPORATED
EAST LA
Metro J Line
Metrolink
710
北流动性枢纽

Chapter 2

Where are we Planning the Hubs?

What Did We Hear?

The project team scheduled three rounds of community engagement to align with key decision points in the planning process and tailored outreach activities to meet the needs, characteristics, and demographics of each community in the study area. The project team worked in partnership with community-based organizations (CBOs) to deliver an on-the-ground, grassroots approach to engagement. Round one of outreach introduced the project to community members and collected feedback about where the mobility hubs should be located. Round two introduced the final 10 hub locations and asked community members about the types of amenities they would like to see at the hubs. Round three collected input on the recommended concepts for the 10 mobility hub locations. Each round of outreach included written and spoken translation as necessary in Spanish and Chinese.



Steering Committee

Key stakeholders formed the Steering Committee which helped refine project ideas before each round of community engagement. The steering committee was composed of representatives from each of the project partners, including Los Angeles County, SCAG, Metro, Cal State LA, and the Cities of Alhambra, Los Angeles, and South Pasadena, as well as representatives from the consultant and CBO teams. The steering committee met monthly to discuss project updates and the next steps. The committee was also key in refining project concepts such as the project goals, the mobility hub locations, outreach strategies, and hub concepts.

Round 1 Community Engagement (Winter 2021)

Round one of community engagement included 10 pop-up events and a survey. The goal of the first round of outreach was to understand where community members travel and where their daily trips typically begin, as well as the barriers to walking, biking, and taking transit that exist in these locations. During these engagement activities, the project team also asked participants if they had suggestions for where they would like to see a mobility hub and what active transportation infrastructure they would like to see installed near the hubs that would encourage more walking, biking, and transit

use. In total, round one of engagement directly reached around 400 community members. In addition to English, all materials created for round one were also available in Spanish, traditional Chinese, and simplified Chinese.

The project team hosted the 10 pop-ups at the following locations:

- Lincoln Heights Farmers Market, November 17, 2021
- Cal State LA American Society of Civil Engineers Student Club, November 19, 2021
- SoPas GoldLine Square, November 23, 2021
- Highland Park Farmer's Market, November 23, 2021
- Cal State LA, December 7, 2021
- Lincoln Park (Plaza De La Raza), December 12, 2021
- South Pasadena Farmers Market, December 16, 2021
- Alhambra Farmers Market, January 23, 2022
- Los Angeles State Historic Park, January 24, 2022
- Sycamore Groves Park, January 27, 2022

Most of these pop-ups involved setting up a table during an event, except at the Cal State LA American Society of Civil Engineers Student Club, in which the project team also included a brief presentation to the

participants. Large maps and displays at each of the pop-ups asked participants questions about their travel behaviors, barriers to walking and biking, and their preferred active transportation amenities. Participants could write their comments and answers on sticky notes and place them on the maps.

Participants that attended the pop-ups also completed a short survey asking what would encourage them to walk, bike, and take transit more frequently. Averages from all survey responses showed that safer, more comfortable bicycle and pedestrian facilities, and more affordable transit services were the most popular responses (**Figure 14**). The survey also asked about the amenities that participants felt were the most important at the mobility hub sites. The most chosen amenities were comfortable, social seating areas; prepared food options, coffee shops, or other dining options; and real-time transit schedule screens. Most of the participants who took the survey in round one work, live, or go to school in the study area (**Figure 15**). **Appendix C** has the full list of survey responses.

Common themes in round one included: the desire for more frequent bus stops, better transit services, cleaner services and streets, better security, and more lighting.

Figure 14: Which of the following reasons would make you walk, bike, use shared mobility services,or take transit more often? Choose all that apply.

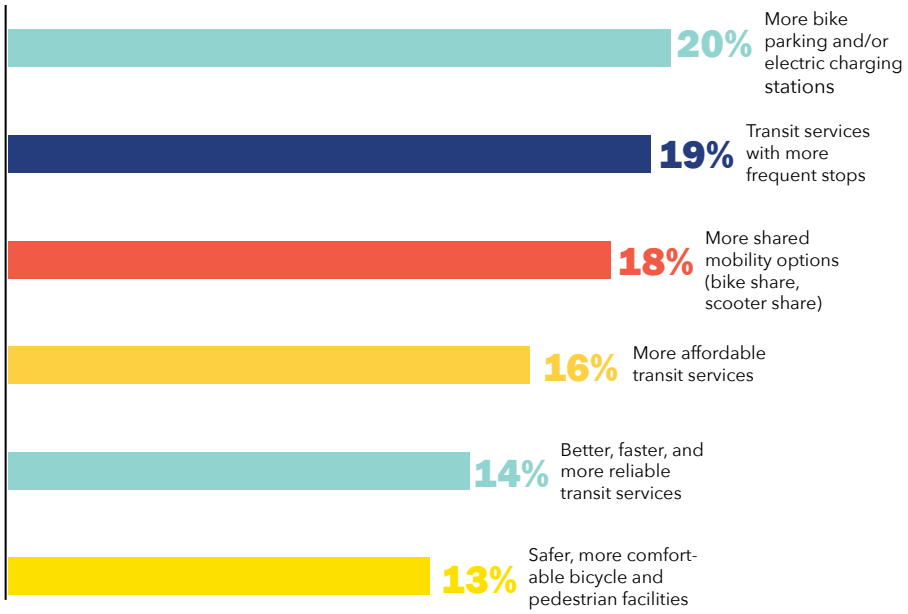
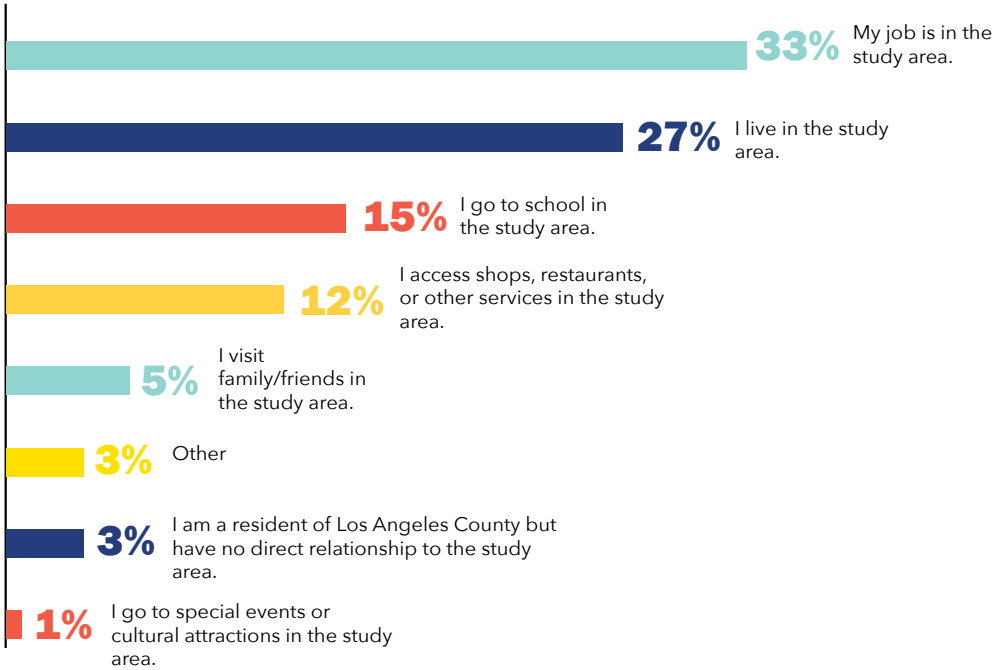


Figure 15: Which of the following statements describe(s) your relationship with the I-710 North study area?



Round 2 Community Engagement (Spring 2022)

During round two of in-person community engagement, the project team hosted five workshops to inform the public about the mobility hub locations and ask community members about what they would like to see at the future hubs.

The project team held the five workshops at the following locations:

- Cal State LA Wellness Fair, April 27, 2022
- El Sereno Kite Festival, April 30, 2022
- The Eco Fair at Golden Streets, May 1, 2022
- The South Pasadena Farmers' Market, May 12, 2022
- Alhambra Dream Center, June 10, 2022

At each workshop, community members were invited to provide concerns, comments, or ideas they had about each mobility hub location. Across all of the workshops, the Cal State LA Gateway location received the most comments of any potential hub location. Participants requested bus stop improvements like real-time arrival signs, more parking for commuters, a children's area, and cultural and historical signage at the hub. One comment included concerns about graffiti in the area.

Community desired active transportation improvements included: connected and separated bicycle and pedestrian facilities, car share, and micromobility.

In addition to the mobility hub locations, the project team asked community members to provide feedback about the types of amenities they would like to see at the hubs using an interactive card deck game. The top five most desired amenities chosen by community members were shade, free Wi-Fi, workstations, lighting, and water stations. **Figure 16** shows the number of times a community member voted in favor of a particular amenity.

Detailed information about the amenity options and how they were finalized is in **Chapter 3**.

Community members could also view the workshop materials on the project website and provide feedback virtually. This generated an additional 55 comments to the maps. Overall, community members want to see improvements to connecting active transportation facilities, infrastructure that separates pedestrians and bicyclists from vehicles or slows down vehicles, and amenities like car share and micromobility. Key comments for specific hub locations are shown in **Figure 17**.

Figure 16: Round Two Engagement Results

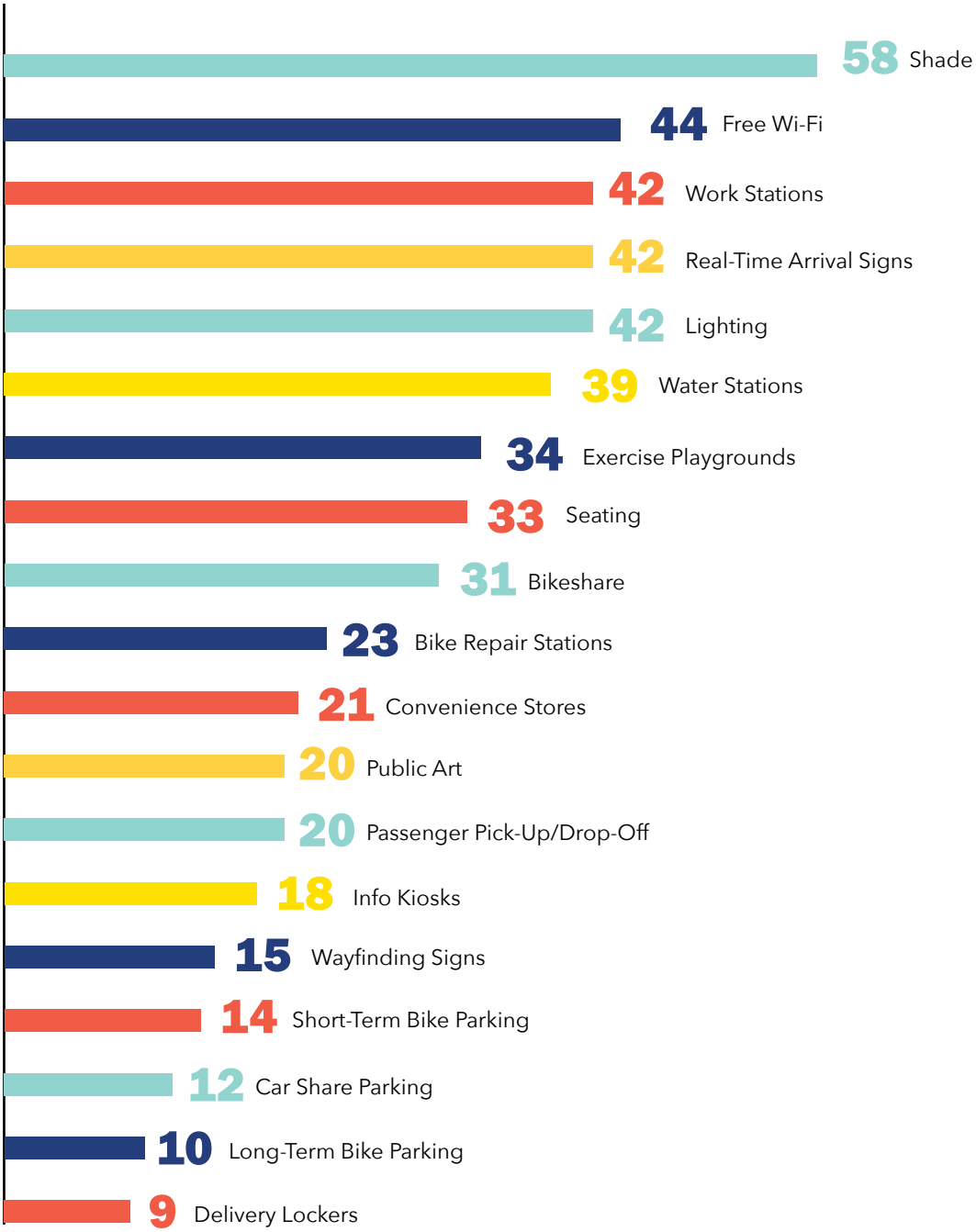


Figure 17: Round 2 Key Comments

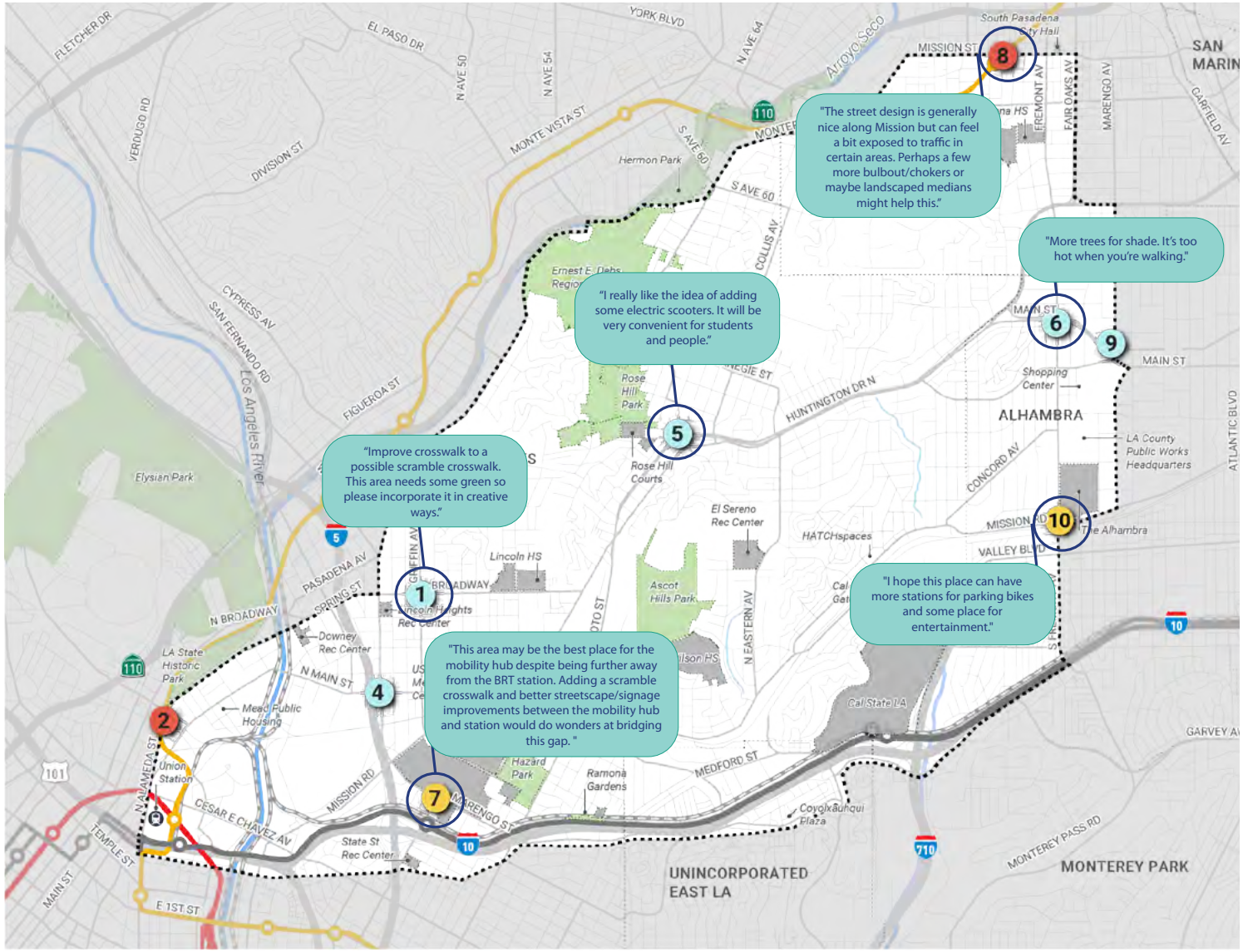
Selected Mobility Hub

- **Typology 1: Bus Stop Mobility Hub**
- **Typology 2: Rail Station Mobility Hub**
- **Typology 3: Campus Mobility Hub**

General Legend

Key Destinations

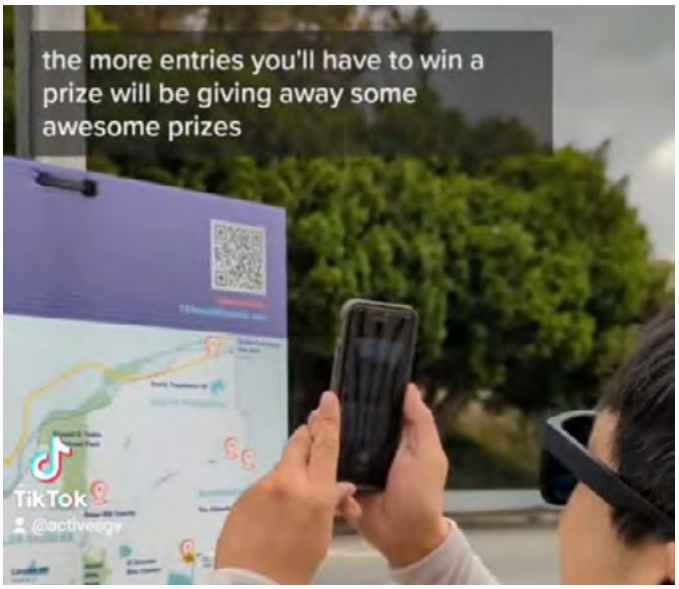
- **Parks**
- **Recreation Centers, Higher Education, High Schools, Civic Centers, Medical Centers, Development Projects, & Public Housing Projects**
- **Study Area**
- **City Boundaries**
- **Metro B Line (Red)/ D Line (Purple)**
- **Metro L Line (Gold)**
- **Metro J Line (Silver)**
- **Metrolink**



Round 3 Community Engagement (Fall 2022)

The third round of outreach engaged community members in person at each of the 10 mobility hub locations and online through a survey and social media challenge. The project team set up a pop-up event at each location to engage participants at the existing transit stops in the hopes that these participants would benefit from mobility hub improvements in the future. At each of these pop-ups, the project team had posters and maps of the proposed improvements and asked for community member feedback.

Pop-up events were held for two hours at each of the mobility hub locations in September and October 2022. The project team set up a table with maps showing the proposed conceptual plan amenities and first- and last-mile improvements at the current mobility hub location and asked community members to provide feedback on the proposed designs and recommendations. These pop-up events allowed participants to ask questions about the project and describe their experiences using the existing transit stops, while also commenting on which improvements they think would fit best at the future mobility hub. The project team interacted with over 300 community members during these pop-ups.



Overall, most participants liked the improvements, with a few people preferring to keep the location as it is. No participants said they disliked any of the improvements. The most popular amenities that participants wanted to see at the mobility hubs were real-time arrival signs, hydration stations, and shade. Key themes among input from community members at the mobility hub locations were:

- Mobility hubs need shade structures to protect from rain and high temperatures.
- Buses and bus stops need to be cleaner and better maintained.
- There needs to be more accessibility for older adults and those with mobility devices at the hubs and on transit vehicles.
- There should be a police or authority presence at the hubs, especially at night.
- Safe, connected bike lanes are needed to reach the mobility hubs.

Common themes in round three included: the need for shade, better maintained bus stops, accessibility, an authority presence at the hubs, and the desire for safe, connected bike lanes.

To build enthusiasm for the Plan, the project team posted a social media challenge to the project website. In two short TikTok videos, the project team challenged community members to visit a mobility hub location, take a selfie, and tag the project team on social media. Participants were encouraged to visit as many hubs as possible, as each selfie counted toward an entry for a prize at the end of the challenge. Not only did the social media challenge encourage community members to physically interact with the Plan space, but the videos also educated viewers about the Plan and the benefits of mobility hubs. While only two people participated in the challenge to take a selfie at a mobility hub, the videos reached over 3,800 TikTok accounts.

A second online survey was created for this round of outreach, and it was open from September 1 to October 14, 2022. Participants were shown maps of the conceptual plans for each of the mobility hubs and asked which amenities they would use most and least, with space for comments. The survey asked participants to only respond regarding the hubs with which they were familiar. Over 100 participants responded to the survey, which was available in English, Spanish, and traditional and simplified Chinese. Overall, the amenities respondents most wanted to see at the mobility hubs were shade structures/bus shelters, seating, and real-time arrival signs (**Figure 18**). The amenities that respondents said they would be least likely to use overall are free public Wi-Fi, bicycle repair stations, and hydration stations (**Figure 19**). These results are generally in line with results from the pop-ups; however, during the pop-ups hydration stations were chosen as one of the most popular amenities. This may have been a result of pop-up participants physically being outdoors and experiencing the discomfort of a lack of hydration stations.

Results of the survey for each of the mobility hub locations are detailed in **Table 2**.

Figure 18: Round Three Engagement Results Preferred Amenities

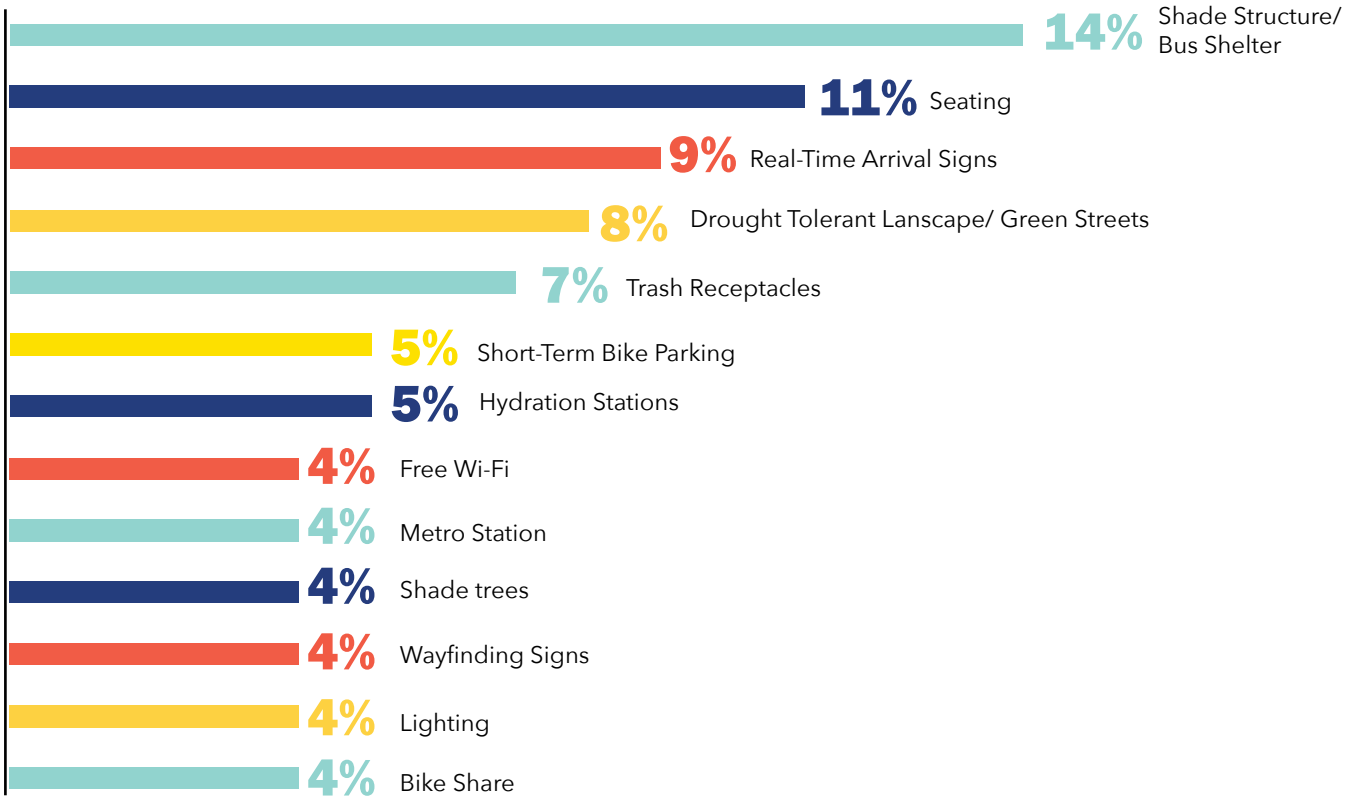


Figure 19: Round Three Engagement Results Least Preferred Amenities

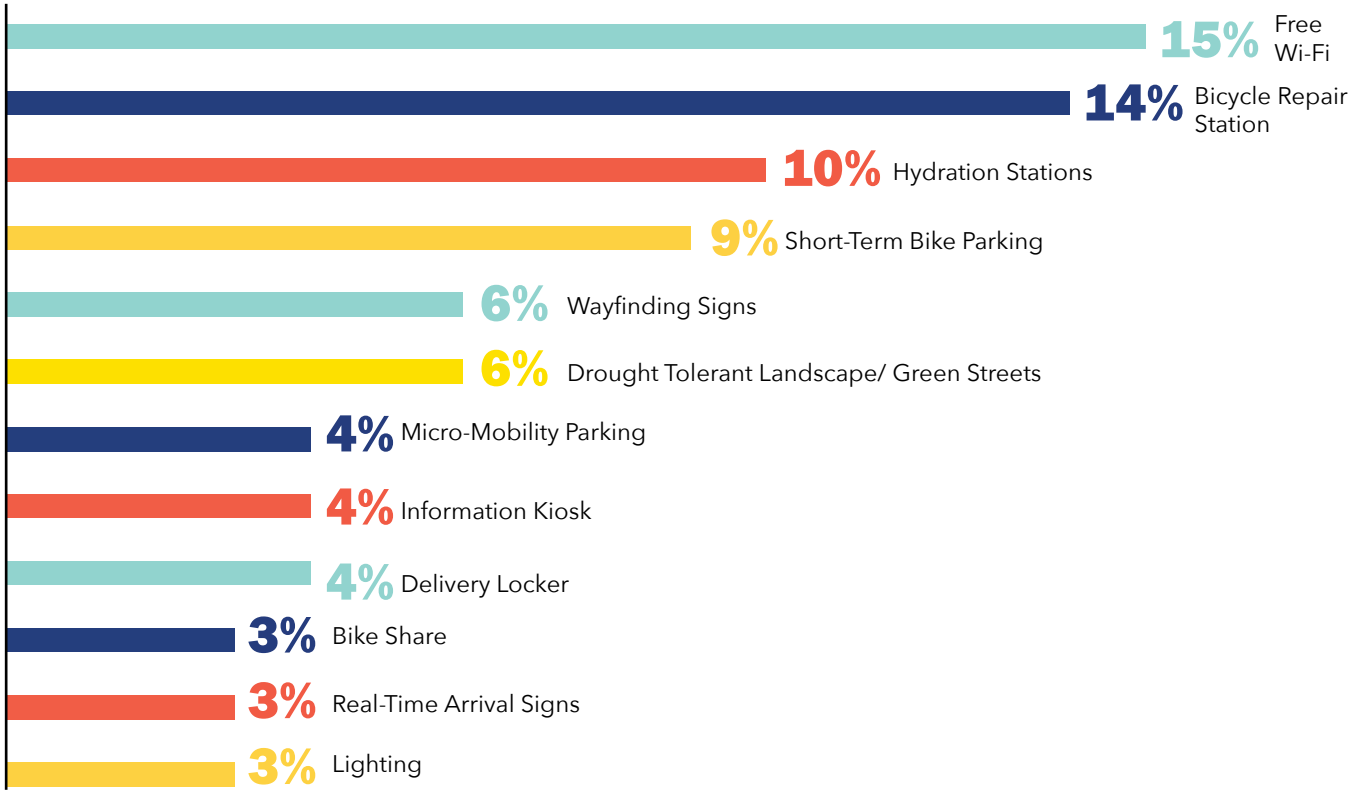
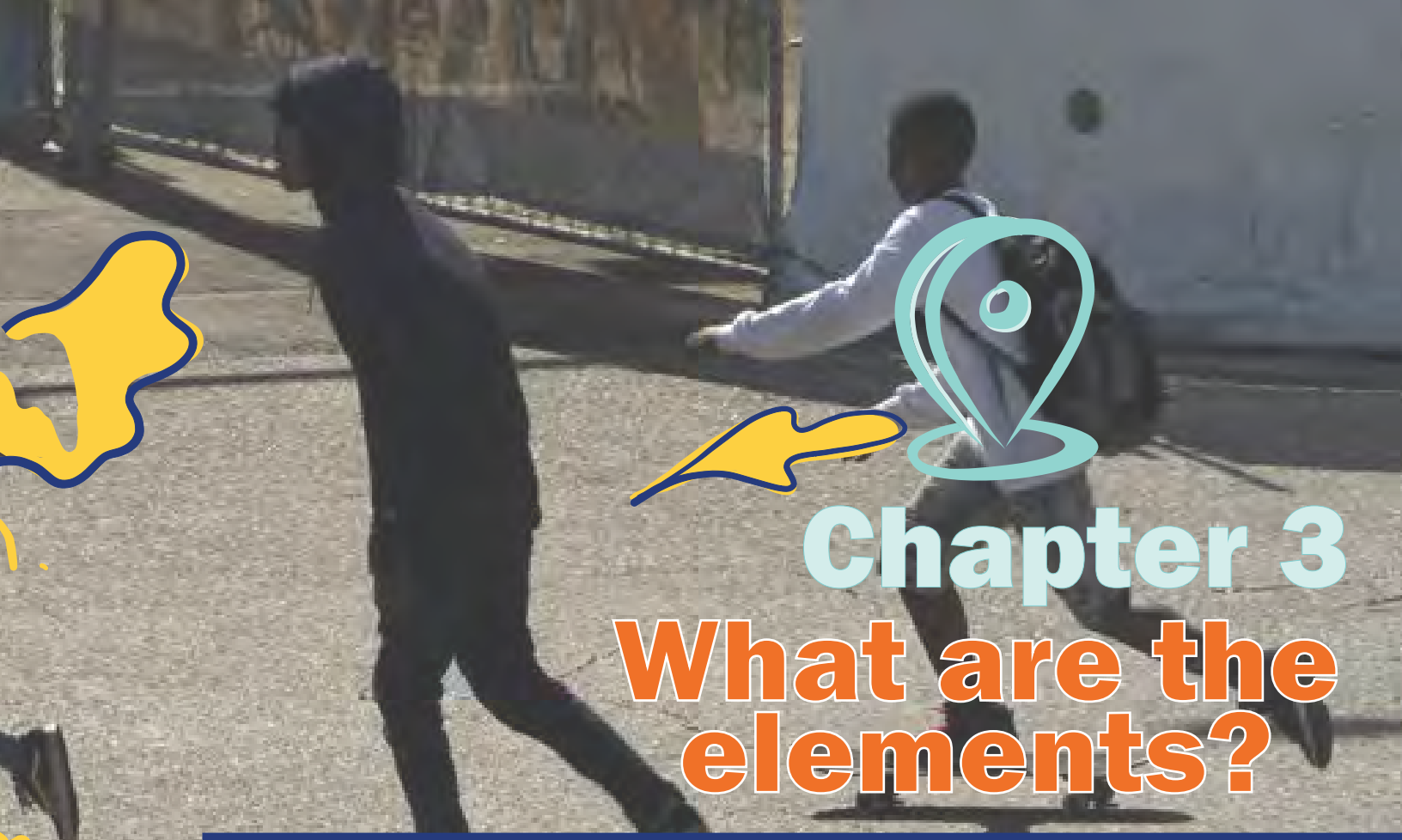


Table 2: Round Three Survey Results

Mobility Hub Location	Shade structures/ bus shelters	Seating	Real-time arrival signs	Free public Wi-Fi	Hydration stations	Bicycle repair stations	Metro station	Bike share	Delivery lockers	Long-term bike parking	Shade trees	Work stations	Micromobility parking	Exercise playgrounds	Trash receptacles	Short-term bike parking	Drought-tolerant landscaping/ green streets	Charging stations for devices	Passenger pick-up/drop-off zone	Car share parking	Information kiosks	Other Participant Comments
Broadway/ Griffin Avenue	✓	✓	✓	✗	✗	✗																Participants requested more seating and shade because people are often required to stand to wait for the bus at this location.
Chinatown Station	✓			✗			✓	✓	✗	✗												Participants noted that this location has comfortable active transportation access so they would not like to see more car infrastructure here.
Cal State LA Gateway	✓	✓			✗				✗		✓	✗	✗	✗								Participants requested bicycle infrastructure near this location like protected bicycle lanes and bike/bus lanes.
Daly Street/ Main Street	✓	✓		✗		✗									✓	✗						Participants requested electric vehicle charging stations and increased pedestrian safety features.
Huntington Drive/ Monterey Road	✓			✗		✗					✓						✓	✗				Participants stated that this location would be good for rideshare drop-off and long-term bike parking.
Main Street/ Fremont Avenue	✓	✓	✓	✗		✗									✓	✗	✓					Participants requested electric vehicle charging and crosswalk improvements.
Marengo Street/State Street	✓		✓	✗	✗	✗				✗							✓					Participants asked for more seating and lighting and a place that provides shade and cover from the rain.
Mission Street/ Meridian Avenue				✗	✗	✗	✓	✓											✓	✗	✗	Participants noted that this location already has many amenities, but would be enhanced with secure bicycle parking.
Main Street/Palm Boulevard	✓	✓	✓	✗		✗										✗	✓					Participants requested bicycle infrastructure leading to this hub.
Valley Boulevard/ Fremont Avenue	✓	✓		✗		✗					✓							✗				Participants said bicycling to this location feels dangerous, and protected bicycle lanes are needed on Fremont Avenue.


BIRD



Chapter 3
What are the elements?

The 10 priority mobility hubs in this Plan fit within one of three typologies[1]. Within each typology, there are a number of typical amenities that can be included within the hub, as shown in **Figure 20** and discussed in **Chapter 1**. For the implementation of future hubs, jurisdictions can consider the type of mobility hub as a starting point for understanding the amenities and first- and last-mile improvements that are needed.

Bus Stop Mobility Hubs: Bus stop mobility hubs are the smallest mobility hub type, taking up the space of one to three parking spaces. These hubs are typically located on the street in a parking lane, or on the sidewalk right-of-way adjacent to a bus stop.

Rail Station Mobility Hubs: Rail station mobility hubs are medium in size and can be integrated into rail plazas or adjacent rights-of-way near a rail station. These hubs should include amenities that complement the existing amenities in the rail station plaza.

Campus Mobility Hubs: The campus mobility hubs at Cal State LA and the LAC+USC Medical Center (Marengo/State) are expected to be the largest of the mobility hubs. These hubs will serve as the nexus between campus and city transportation options.

1 The City of Los Angeles classifies mobility hubs into two types–"primary" hubs, which exist at rail stations and serve as the backbone of the multimodal mobility network, and "satellite" hubs, which are typically curbside and supplement the larger hubs. This Plan identifies different, but complementary, typologies.

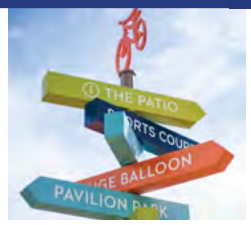
Figure 20: Amenity Options

1 Bus Stop Mobility Hub


Bike share


Short-term bike parking


Seating



Wayfinding

Amenities will depend on the specific location (e.g., not all Type 1 Hubs will have the same amenities).


Micro-mobility parking

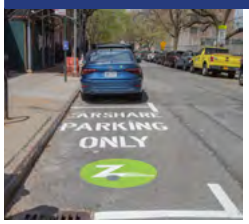
Free wi-fi


Pedestrian-scaled lighting


Shade and shelter

2 Rail Station Mobility Hub

(includes all amenities from the bus stop mobility hub plus...)



Car share parking


Bike repair station


Information kiosk


Real-time arrival signs


Vending Machines


Electric vehicle charging

Passenger pick up and drop off


Public art installation

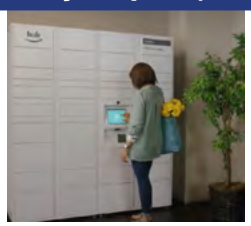

Long-term bike parking

3 Campus Mobility Hub

(includes all amenities from the rail station mobility hub plus...)

Grab and Go Food Market

Convenience store


Delivery locker


Exercise playground


Work station


Work station


Work station


Campus kiosk

Photo credit: ActiveSGV

Mobility Hub Conceptual Plans

The following conceptual plans show examples of how the proposed amenities can fit together at each of the 10 hub locations. These diagrams show the possibilities at each hub location, but further design studies will be required before implementation. Each diagram shows amenities for transit, bicycles and micromobility, and automobiles; information and wayfinding; waiting areas; and support services. The diagrams also show the transit lines that will be served by the mobility hub and recommendations for nearby active transportation infrastructure. These transit lines are accurate at the time of writing this Plan, however are subject to change. The Metro L Line (Gold) is expected to be replaced with the Metro A Line (Blue) in 2023 and the Metro line 256 is expected to be replaced by Line 665 in 2023. At each of these mobility hubs, language accessibility considerations should be made on written materials, like wayfinding signage, particularly in communities such as El Sereno, Alhambra, and Chinatown that have higher shares of people who speak a language other than English.

BROADWAY/GRIFFIN
BUS STOP MOBILITY HUB

Bicycle / Micro-mobility
1. Short-term bike parking
2. Bicycle repair station

Information / Wayfinding
1. Wayfinding signs
2. Free public Wi-Fi
3. Real-Time arrival signs

Waiting Areas
1. Shade structure / Bus shelter
2. Seating
3. Trash receptacle
4. Drought tolerant landscape
5. Hydration station

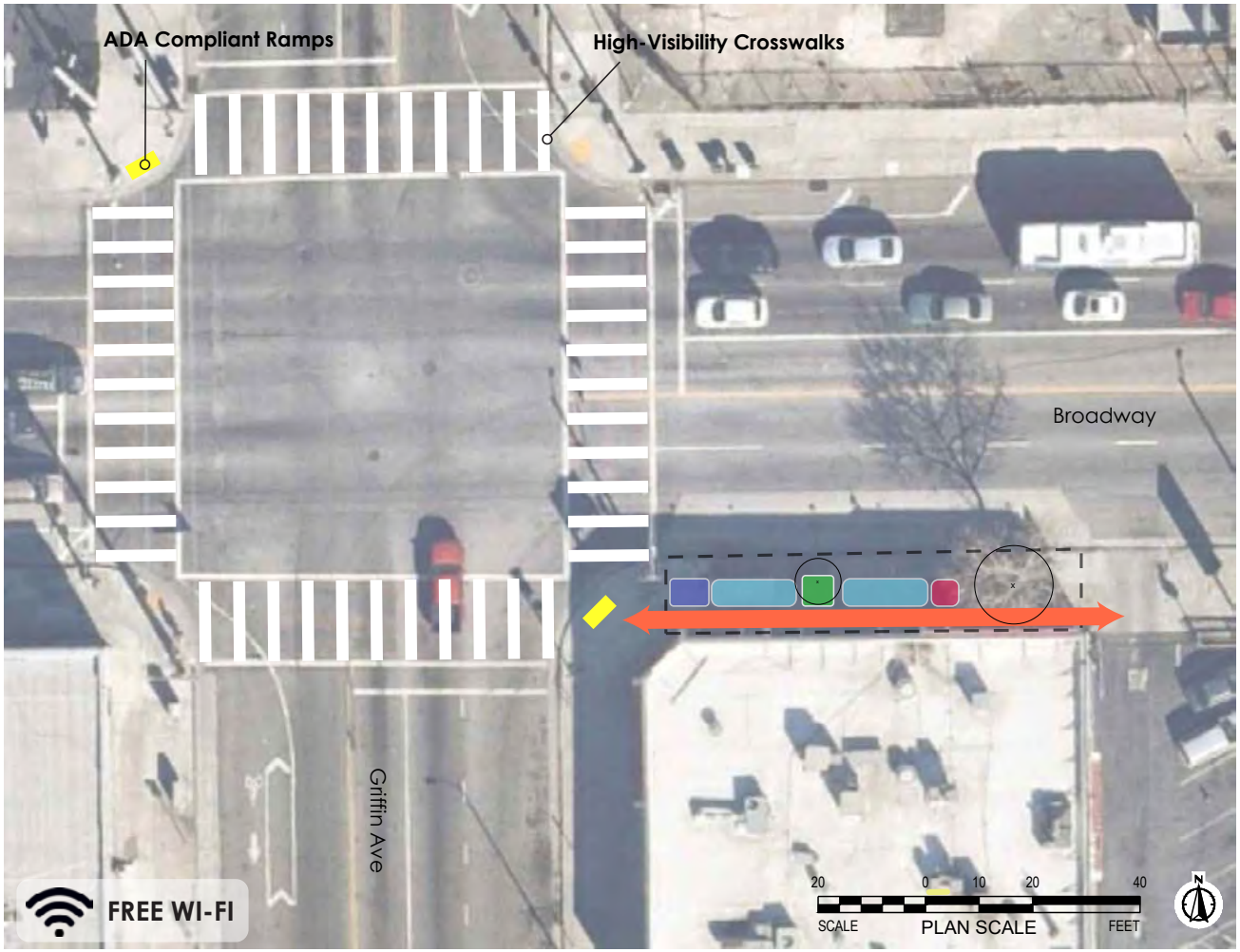
Served by Metro Lines 45 & 182 and DASH Lincoln Heights/Chinatown

Circulation

Existing Element

City of Los Angeles

alta



CHINATOWN STATION
RAIL STATION MOBILITY HUB

Transit
1. Metro Station

Bicycle / Micro-mobility
1. Short-term bike parking
2. Long-term bike parking
2. Bike share
3. Bicycle repair station
4. Electric bike charging
5. Micro-mobility parking

Vehicle
1. Passenger pick up/drop off zone

Information / Wayfinding
1. Wayfinding signs
2. Free public Wi-Fi
3. Information kiosk
4. Real-Time arrival signs

Waiting Areas
1. Shade structure / Bus shelter
2. Seating
3. Trash receptacles
4. Drought tolerant landscape
5. Hydration station

Support Services
1. Street vendor accomodations
2. Delivery locker

Served by Metro Rail L Line (Gold) (Metro Rail A Line (Blue) expected 2023), Metro Line 76, DASH Lincoln Heights/Chinatown, DASH Downtown B, and Santa Clarita Transit Routes 794 & 799

Circulation

Existing Element

City of Los Angeles alta

CAL STATE LA GATEWAY
CAMPUS MOBILITY HUB

Bicycle / Micro-mobility
1. Short-term bike parking
2. Bike share
3. Bicycle repair station
4. Electric bike charging
5. Micro-mobility parking

Information / Wayfinding
1. Wayfinding signs
2. Free public Wi-Fi
3. Information kiosk
4. Real-Time arrival signs

Waiting Areas
1. Shade structure / Bus shelter
2. Seating
3. Lighting
4. Trash receptacles
5. Shade trees
6. Drought tolerant landscape
7. Public art
8. Hydration station
9. Charging station for devices
10. Work station
11. Exercise playground

Support Services
1. Convenience store / retail
2. Street vendor accomodations
3. Delivery locker

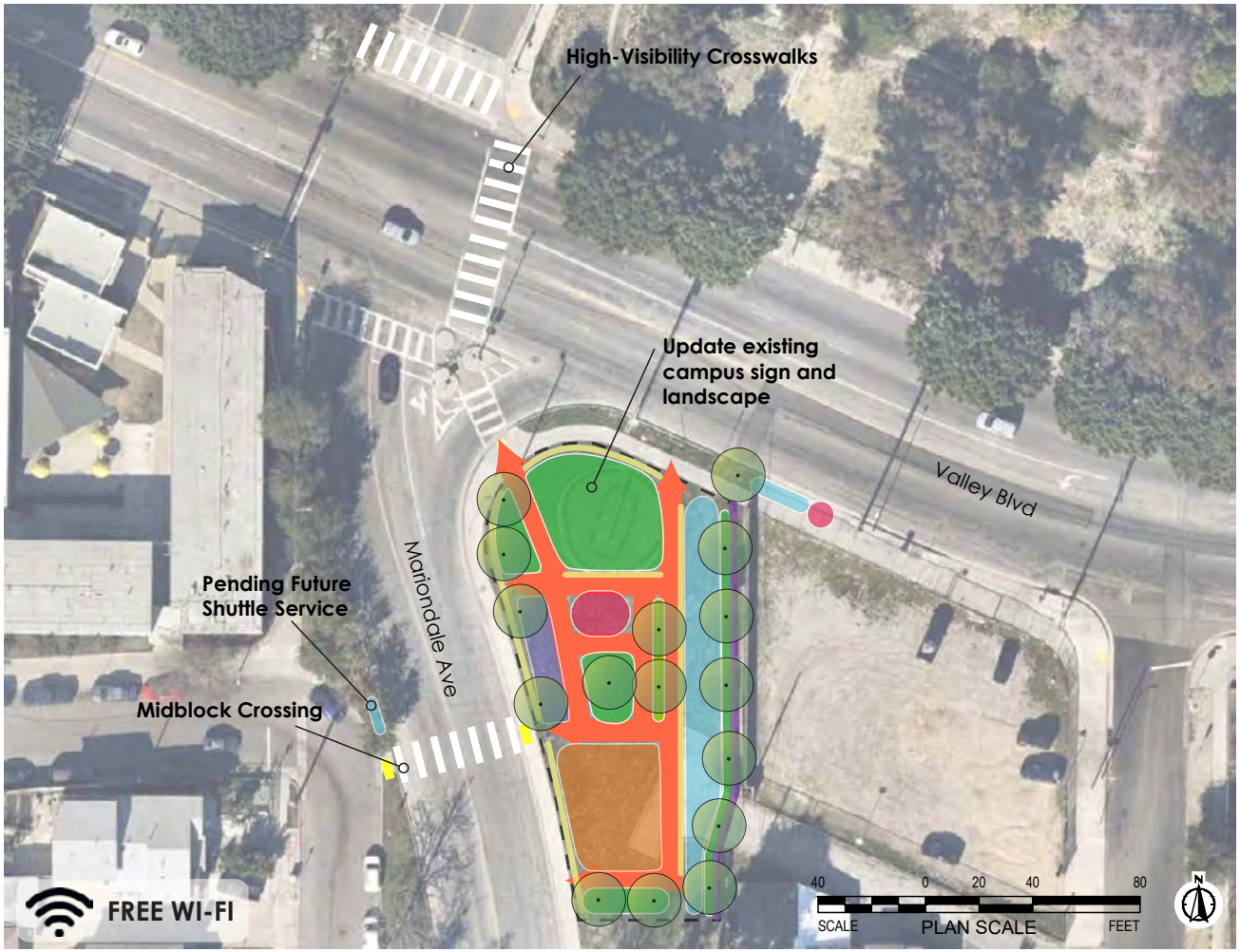
Served by Metro Line 76

Circulation

Existing Element

City of Los Angeles

alta



MAIN/DALY
BUS STOP MOBILITY HUB

Bicycle / Micro-mobility
1. Short-term bike parking
2. Bicycle repair station

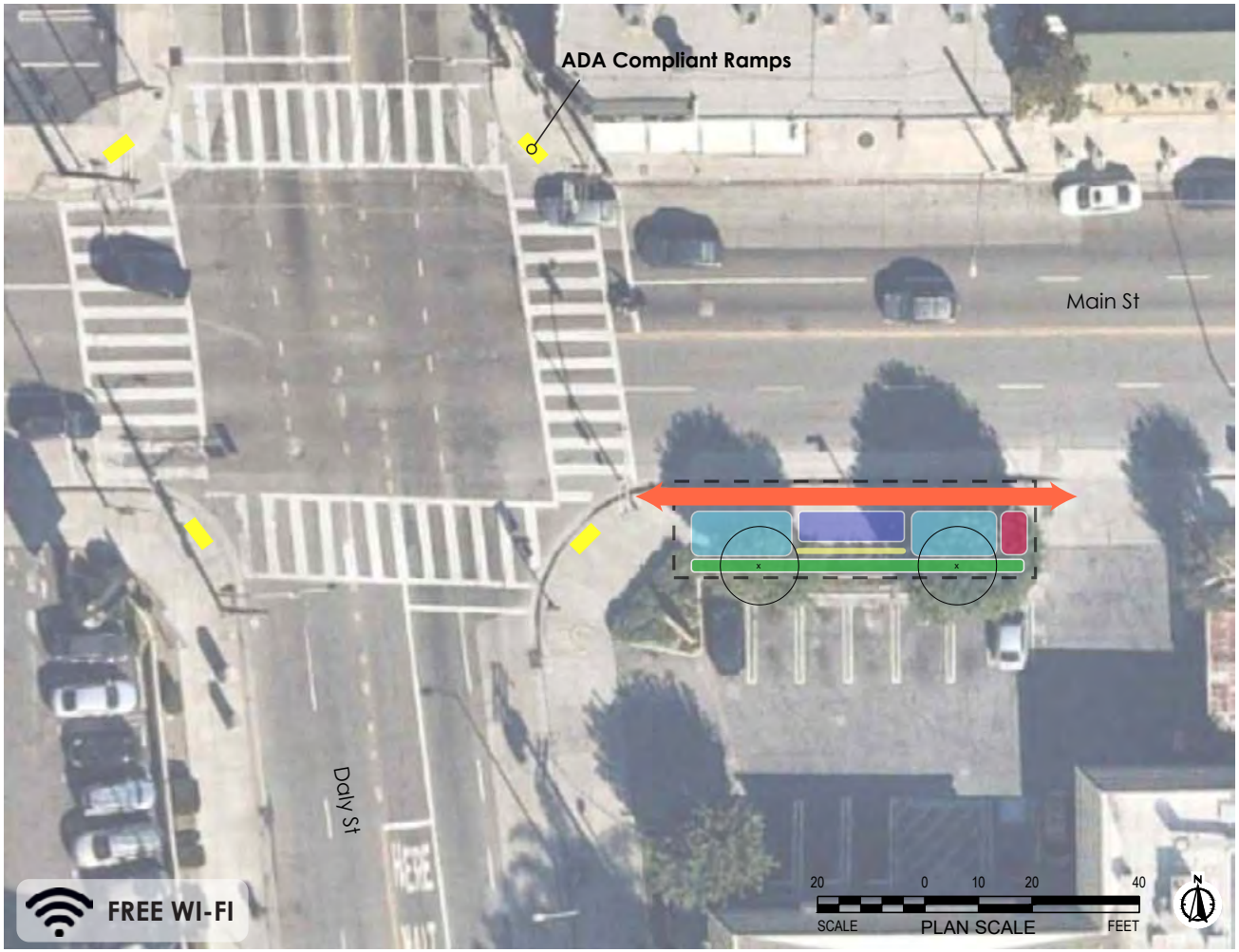
Information / Wayfinding
1. Wayfinding signs
2. Free public Wi-Fi
3. Real-Time arrival signs

Waiting Areas
1. Shade structure / Bus shelter
2. Seating
3. Lighting
4. Trash receptacle
5. Drought tolerant landscape
6. Hydration station

Served by Metro Lines 76 & 251 and DASH Lincoln Heights/Chinatown

Circulation

Existing Element



City of Los Angeles alta

HUNTINGTON/MONTEREY
BUS STOP MOBILITY HUB

Transit
1. Bus layover zone

Bicycle / Micro-mobility
1. Short-term bike parking
2. Bike share
3. Bicycle repair station
4. Electric bike charging
5. Micro-mobility parking

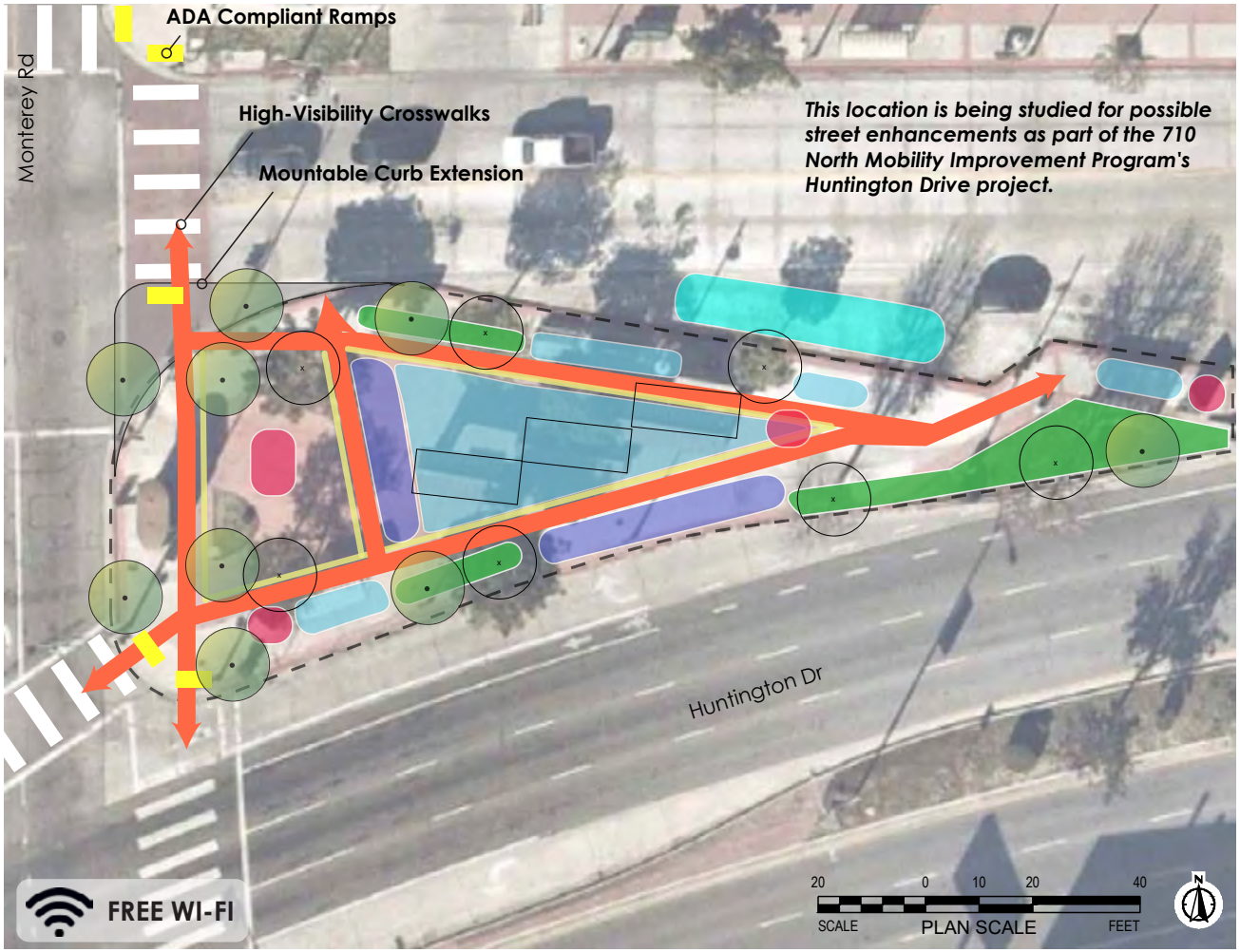
Information / Wayfinding
1. Wayfinding signs
2. Free public Wi-Fi
3. Information kiosk
4. Real-Time arrival signs

Waiting Areas
1. Shade structure / Bus shelter
2. Seating
3. Lighting
4. Trash receptacles
5. Shade trees
6. Drought tolerant landscape
7. Hydration station
8. Charging station for devices

Served by Metro Lines 78, 179, 182 & 256 (Line 665 expected 2023), Metro Micro

Circulation

Existing Element



This location is being studied for possible street enhancements as part of the 710 North Mobility Improvement Program's Huntington Drive project.

City of Los Angeles

alta

MAIN/FREMONT
BUS STOP MOBILITY HUB

Bicycle / Micro-mobility
1. Short-term bike parking
2. Bicycle repair station

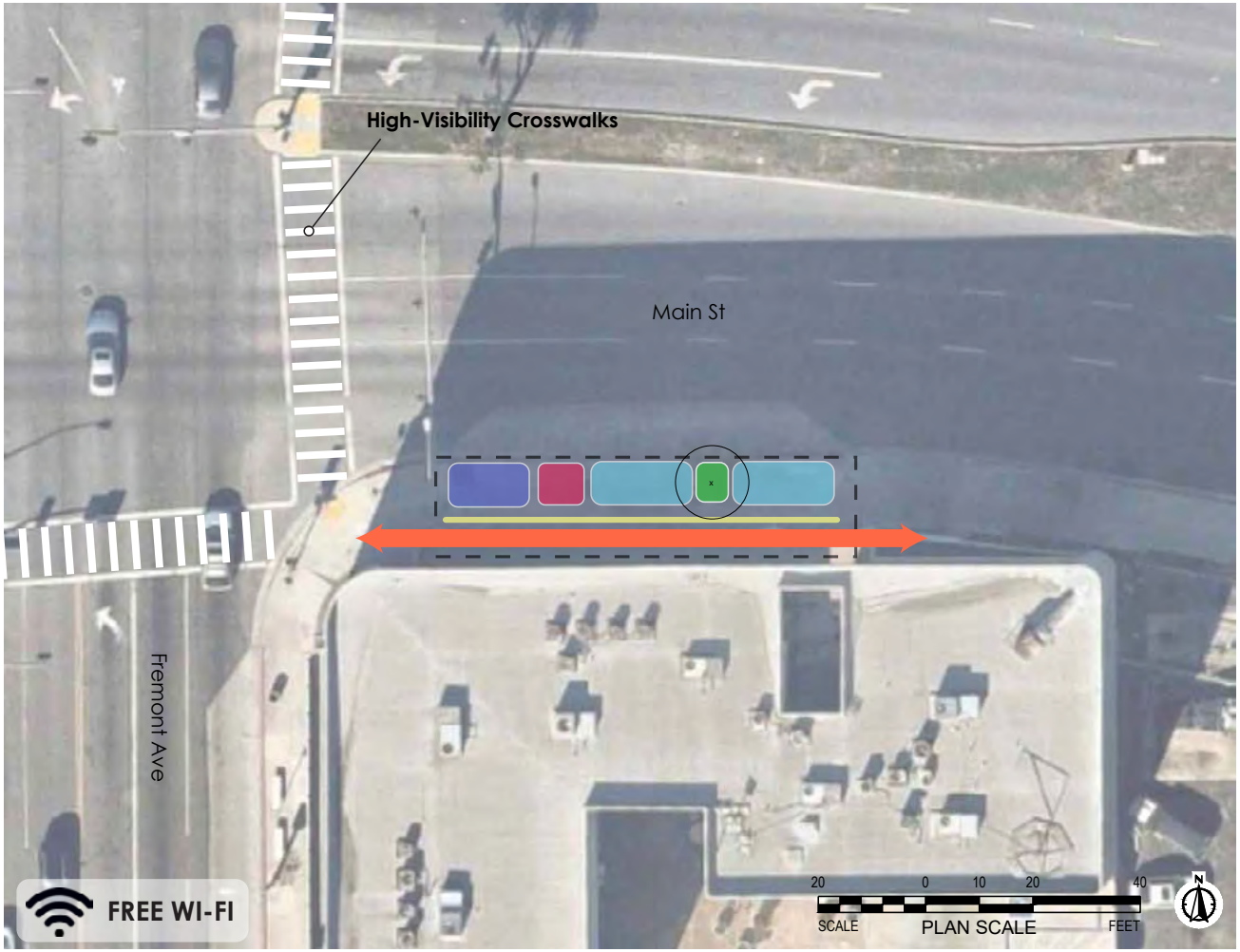
Information / Wayfinding
1. Wayfinding signs
2. Free public Wi-Fi
3. Real-Time arrival signs

Waiting Areas
1. Shade structure / Bus shelter
2. Seating
3. Lighting
4. Trash receptacle
5. Drought tolerant landscape
6. Hydration station

Served by Metro Lines 78 & 258

Circulation

Existing Element



City of Alhambra

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MARENGO/STATE
CAMPUS MOBILITY HUB

Bicycle / Micro-mobility
1. Short-term bike parking
2. Long-term bike parking
2. Bike share
3. Bicycle repair station
4. Electric bike charging
5. Micro-mobility parking

Information / Wayfinding
1. Wayfinding signs
2. Free public Wi-Fi
3. Information kiosk
4. Real-Time arrival signs

Waiting Areas
1. Shade structure / Bus shelter
2. Seating
3. Lighting
4. Trash receptacles
5. Drought tolerant landscape
6. Hydration station

Served by Metro Lines 106, 251 & 605 and DASH Boyle Heights/East LA

Circulation

Existing Element

City of Los Angeles

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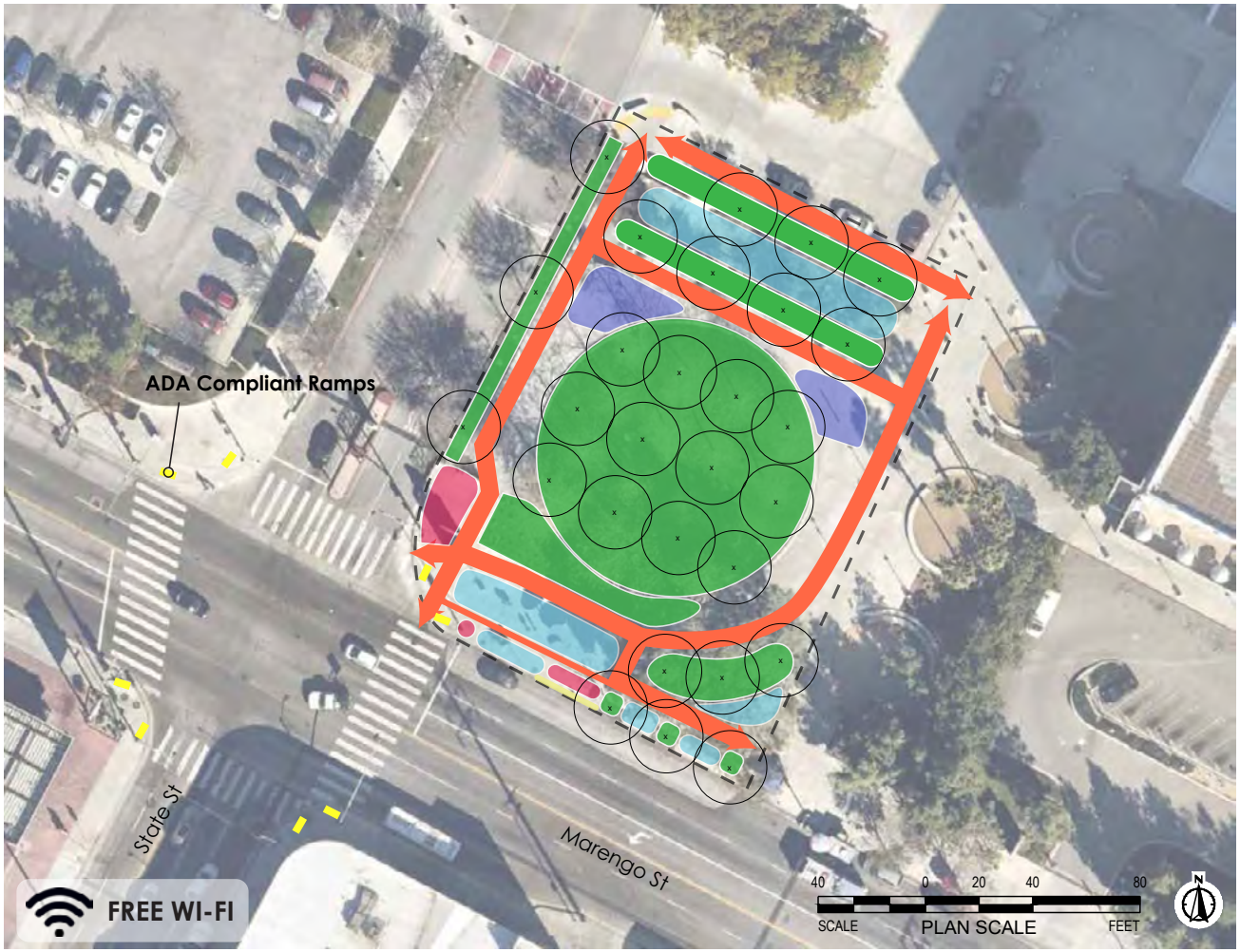


MISSION/MERIDIAN
RAIL STATION MOBILITY HUB

Transit
1. Metro Station

Bicycle / Micro-mobility
1. Short-term bike parking
2. Bike share
3. Bicycle repair station
4. Micro-mobility parking

Vehicle
1. Passenger pick up/drop off zone

Information / Wayfinding
1. Wayfinding signs
2. Free public Wi-Fi
3. Information kiosk
4. Real-Time arrival signs

Waiting Areas
1. Seating
2. Trash receptacles
3. Drought tolerant landscape
4. Public art
5. Hydration station

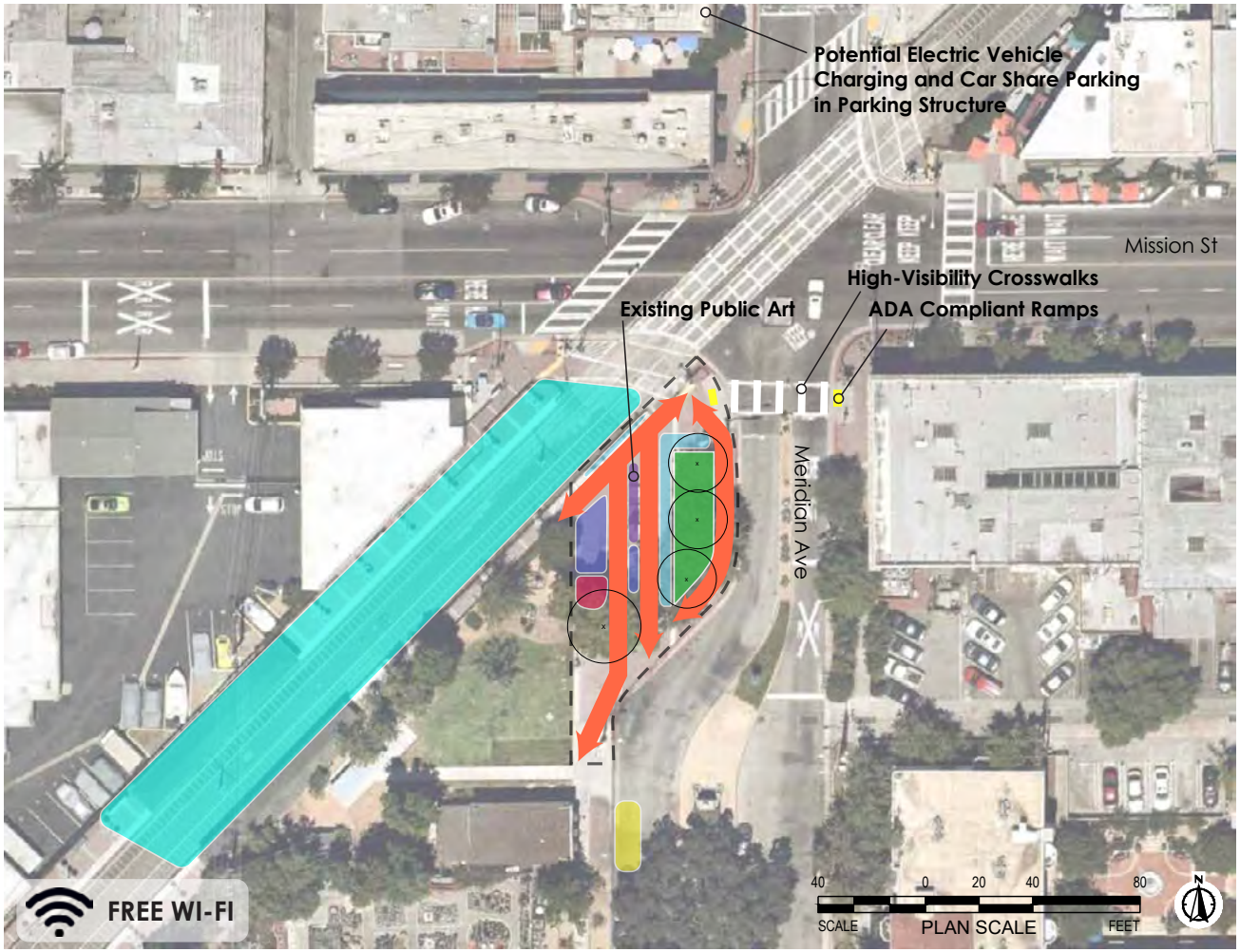
Served by Metro Rail L Line (Gold) (Metro Rail A Line (Blue) expected 2023) and Metro Bus Line 258

Circulation

Existing Element

City of South Pasadena

alta



MAIN/PALM/RAYMOND
BUS STOP MOBILITY HUB

Bicycle / Micro-mobility
1. Short-term bike parking
2. Bicycle repair station

Information / Wayfinding
1. Wayfinding signs
2. Free public Wi-Fi
3. Real-Time arrival signs

Waiting Areas
1. Shade structure / Bus shelter
2. Seating
3. Lighting
4. Trash receptacle
5. Drought tolerant landscape
6. Hydration station

Served by Metro Line 78 and Alhambra Community Transit (ACT) Green Line

Circulation

Existing Element

City of Alhambra

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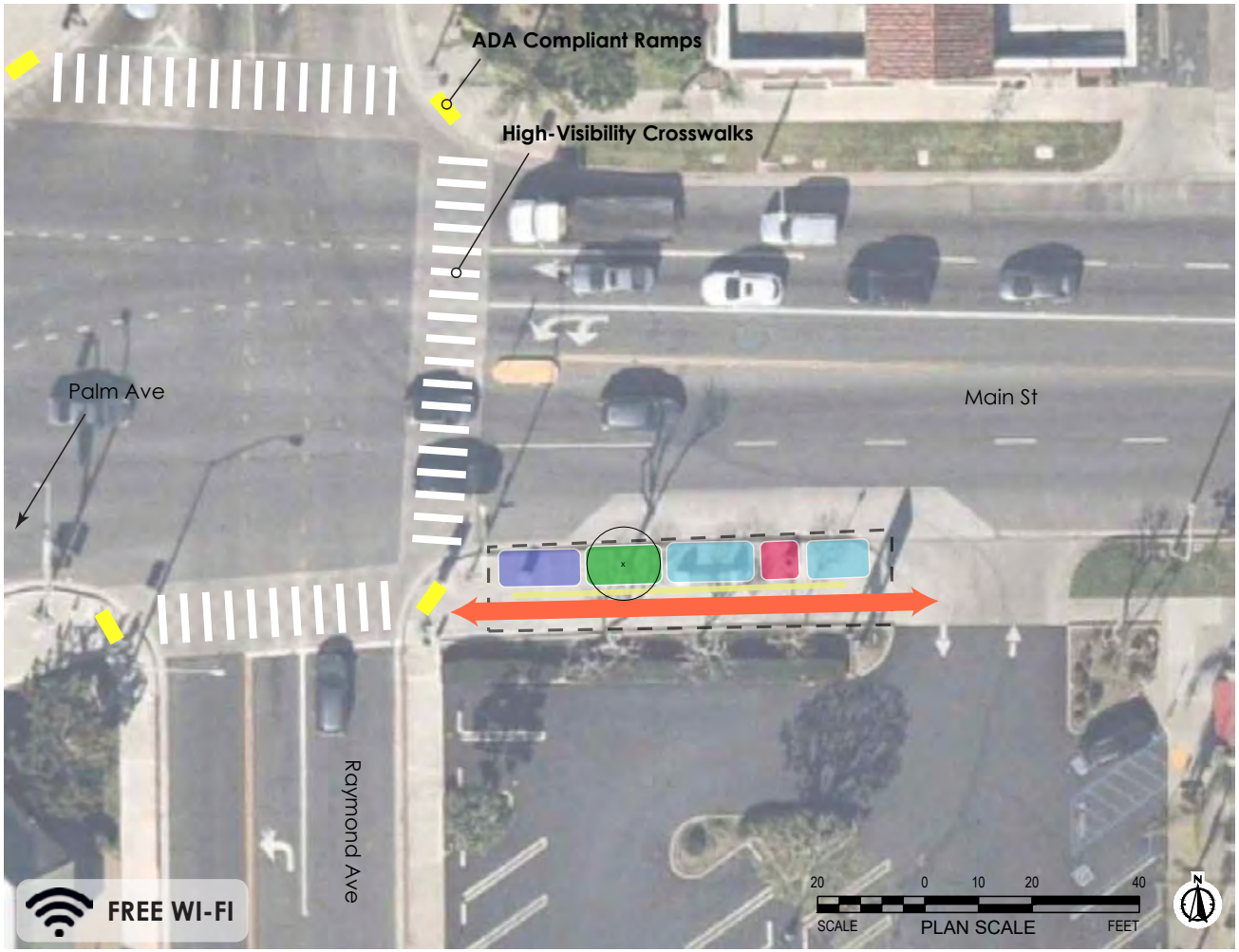


VALLEY/FREMONT
BUS STATION MOBILITY HUB

Bicycle / Micro-mobility
1. Short-term bike parking
2. Bike share
3. Bicycle repair station
4. Electric bike charging
5. Micro-mobility parking

Information / Wayfinding
1. Wayfinding signs
2. Free public Wi-Fi
3. Information kiosk
4. Real-Time arrival signs

Waiting Areas
1. Shade structure / Bus shelter
2. Seating
3. Lighting
4. Trash receptacles
5. Shade trees
6. Drought tolerant landscape / green streets
7. Hydration station
8. Charging station for devices

Served by Metro Lines 76 & 258 and Alhambra Community Transit (ACT) Green & Blue Lines

Circulation

Existing Element

City of Alhambra

alta

First-Last Mile Improvements

First- and last-mile improvements around the mobility hubs are a crucial element in ensuring the hubs remain accessible and safe for everyone walking and biking. For each of the mobility hubs, a 1/4- or 1/2-mile improvement area was established depending on the hub typology. Bus stop mobility hubs have a 1/4-mile improvement area, and larger campus and rail mobility hub locations have a 1/2-mile improvement area, in recognition that people will walk further distances to access the larger hubs with more amenities. The following photos show the possible first- and last-mile improvements at each hub. These recommendations represent a snapshot in time. Additional design work will need to be completed to verify on-the-ground conditions, prepare design concepts, and develop engineering drawings.

High-Visibility Crosswalk

Crosswalk markings, especially white or yellow stripes (Continental crosswalks), encourage motor vehicles to slow down when approaching intersections.

Seating

Seating provides an area where people can rest or socialize. Seating also helps build a sense of place and character in a neighborhood.

Traffic Calming

Speed humps slow traffic and can be retrofit with wheelcut-throughs, allowing fire trucks to pass more quickly. Speed restriction signage is another example of traffic calming.

Bidirectional Pedestrian Ramps

Bidirectional pedestrian ramps provide an accessible path for pedestrians with mobility impairments and those using wheeled devices.

Pedestrian Lighting

Pedestrian lighting is oriented toward the sidewalk, increasing pedestrian visibility and improving safety for people walking, biking, and driving.

Class IV Separated Bikeway

A Class IV separated bikeway is a cycle track or protected bike lane that is physically separated from vehicular traffic using bollards, planters, or parked automobiles.

Bus Stop Improvements

Bus stop improvements include a bus shelter for shade, seating, real-time signage, a trash can, and lighting.

Wayfinding Signage

Wayfinding signage helps people walking and biking locate important landmarks and destinations and points to the mobility hubs.

Class III Neighborhood Greenway

Neighborhood Greenways use signage and traffic calming and/or diversion techniques to create a comfortable place for people walking and biking. Typically Neighborhood Greenways are located on residential streets and include shade trees and pedestrian lighting.

Street Trees

Street trees provide shade and heat relief for pedestrians. They also beautify corridors.

Class II Bike Lane

Class II bike lanes use pavement striping and signage to dedicate a portion of the roadway to bicycle travel.

1 Broadway/Griffin

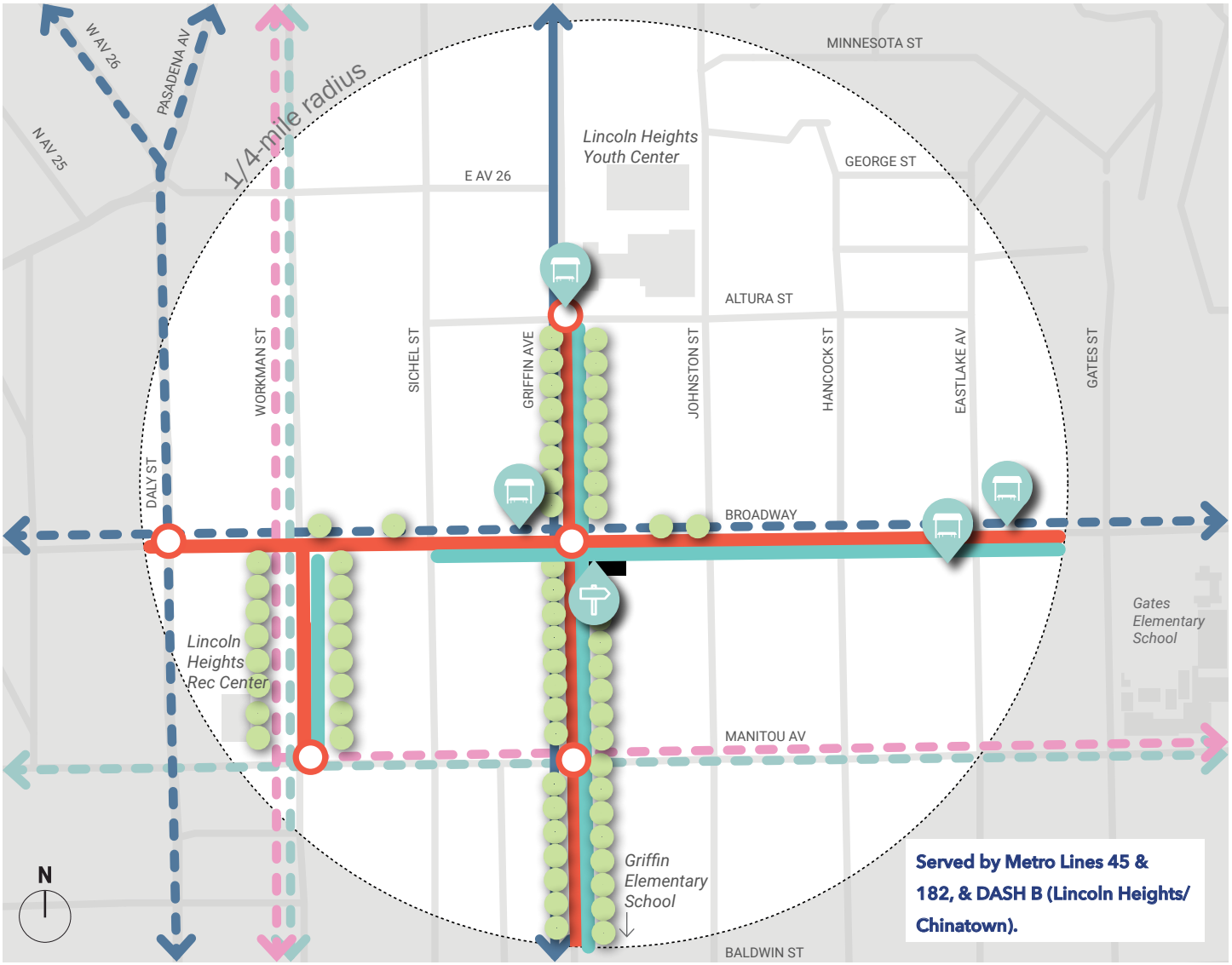
Mobility Hub Type 1, Bus Stop | Los Angeles

Mobility Challenges

The Broadway / Griffin mobility hub is near a commercial corridor on Broadway, local elementary and high schools, and community centers. Mobility challenges in this area include:

- Lack of shading along priority corridors.
- Missing bus shelters.
- Incomplete crosswalks along priority corridors.

Priority Corridor	Reason for Inclusion
Broadway (Daly to Gates)	Commercial corridor along Broadway
Workman St (Broadway to Manitou)	Leads to Lincoln Heights Recreation Center
Griffin Avenue (Altura to Baldwin)	Leads to Lincoln Heights Youth Center and Griffin Elementary School



Legend

- Mobility hub
- Priority corridor
- Add pedestrian lighting
- Add street trees
- Add/improve crosswalk
- Improve bus stop
- Add wayfinding
- Existing bike lane (Class II)
- City-proposed bike route (Class III)
- City-proposed bike lane (Class II)
- 710 Mobility Hub Project proposed Greenway (Class III)

1 Broadway/Griffin

Pedestrian Project List & Key Map

ID	Corridor/Location	Extents	Improvements (length, count, & details)
1A	Mobility Hub	At Broadway / Griffin	• Wayfinding signs (4 signs, one on each corner)
1B	Broadway	Daly to Gates	• Infill missing street trees (2,700 LF, north side of street) • Add pedestrian lighting (2,000 LF, both sides of street) • Bus stop improvements (3 locations. Include bus shelter, seating, and trash can) • Crosswalk enhancements (2 locations. Add artful decorative paving to the west and east legs of Broadway/Daly and all four legs of Broadway/Griffin)
1C	Griffin Avenue	Altura to Baldwin	• Add street trees (Some trees existing, but minimal. 1,240 LF, both sides of street) • Add pedestrian lighting (1,240 LF, east side of street) • Bus stop improvement (1 location. Include bus shelter, seating, and trash can) • Crosswalk enhancements (3 locations. Add continental striping to the south, west, and east legs of Griffin/Altura, add a set of N/S stop signs and continental striping to the north and east legs of Griffin/Manitou, and add artful decorative paving to all four legs of Broadway/Griffin)
1D	Workman Street	Broadway to Manitou	• Add street trees (560 LF, both sides of street) • Add pedestrian lighting (560 LF, both sides of street) • Crosswalk enhancement (1 location. Add continental striping to the south and east legs of Workman/Manitou)

Note: Projects that are located at the intersection of two Priority Corridors are included on each street in the project list, above. Dimensions are estimated and rounded. Corridor dimensions are provided for the full length of the corridor (i.e. include intersections). Bike projects are included on pages 22-23. ***All projects identified in this document, including the recommended bike facility types, are subject to continued feasibility studies, as well as findings in each individual City (e.g. ongoing planning efforts).***

Key Map

2 Chinatown Station

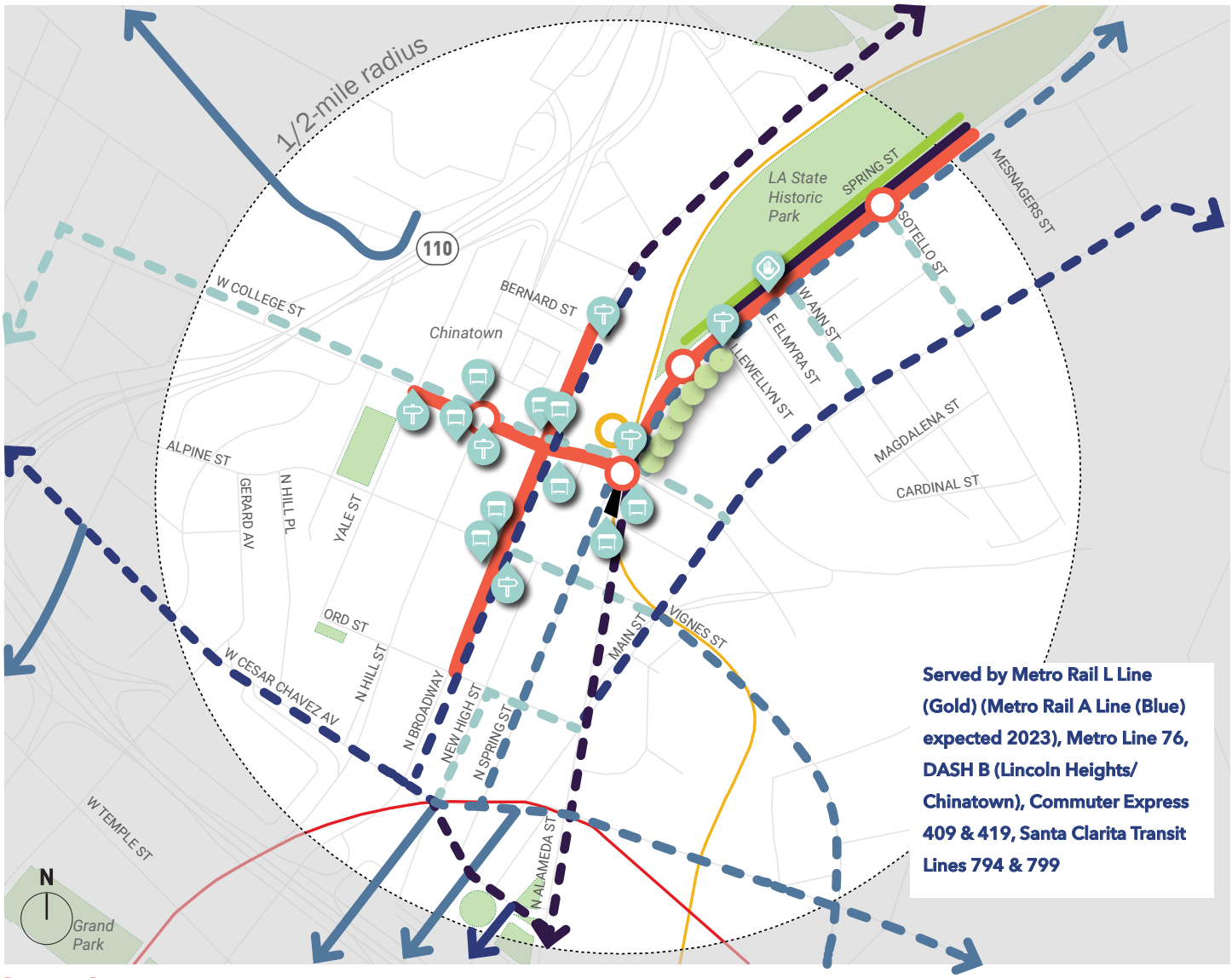
Mobility Hub Type 2, Rail Station | Los Angeles

Mobility Challenges

The Chinatown Station mobility hub is close to the main Chinatown commercial corridor, the Chinatown station on the Metro L Line (Gold), and the Los Angeles State Historic Park. Mobility challenges in this area include:

- Speeding cars along Spring Street.
- Lack of shading along priority corridors.
- Missing bus shelters.
- Incomplete crosswalks along priority corridors.

Priority Corridor	Reason for Inclusion
Broadway Street (Ord to Bernard)	Main commercial corridor in Chinatown
Spring Street (College to Mesnagers)	Leads to LA State Historic Park
College Street (Yale to Alameda)	Leads through Chinatown



Legend

- Mobility hub
- Priority corridor
- Metro station
- Add street trees
- Add/improve crosswalk
- Landscaping and sidewalk improvements
- Improve bus stop
- Add wayfinding
- Add traffic calming
- Existing bike lane (Class II)
- Existing bike path (Class I)
- City-proposed bike route (Class III)
- City-proposed bike lane (Class II)
- City-proposed bikeway (Class IV)
- City-proposed bike path (Class I)

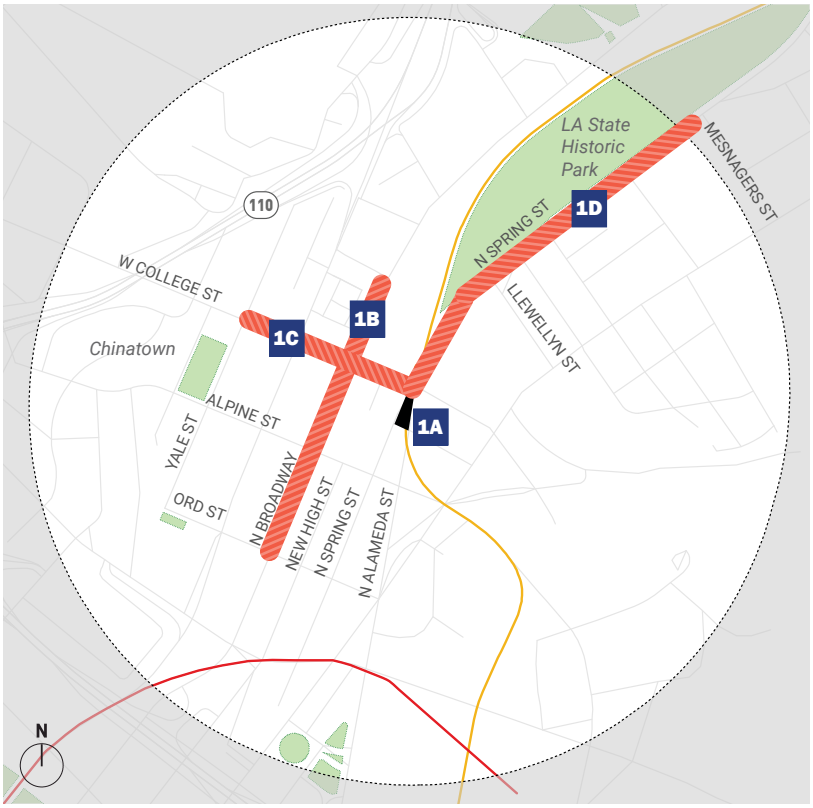
2 Chinatown Station

Pedestrian Project List & Key Map

ID	Corridor/Location	Extents	Improvements (length, count, & details)
1A	Mobility Hub	At College / Alameda	• Wayfinding signs (1 location, 4 signs. One on each corner)
1B	N Broadway	Ord to Bernard	• Wayfinding signs (2 locations, 6 signs. Four signs at Alpine and 2 at the other location, on west side of street.) • Bus stop improvements (5 locations. Include bus shelter, seating, and trash can)
1C	College Avenue	Yale to Alameda	• Bus stop improvements (2 locations. Include bus shelter, seating, and trash can) • Crosswalk enhancements (2 locations. Add continental striping to the north and south legs of College/Alameda and refresh decorative paving at College/Hill) • Wayfinding signs (2 location, 4 signs at each location. One on each corner.)
1D	Spring Street	College to Mesnagers	• Crosswalk enhancements (3 locations. Add continental striping to the north and south legs of College/Alameda. Add new mid-block crossing near the park entrance. Add new continental crosswalks on the three legs of Spring/Sotello.) • Add street trees (520 LF, east side of street) • Wayfinding signs (1 sign at LA State Historic Park entrance) • Bus stop improvements (2 locations. Include bus shelter, seating, and trash can) • Add traffic calming measures (slow speed signage and possible planting in median) • Add understory planting, trees, pedestrian lighting, and wide sidewalks in setback area (2,100 LF, west side of street)

Note: Projects that are located at the intersection of two Priority Corridors are included on each street in the project list, above. Dimensions are estimated and rounded. Corridor dimensions are provided for the full length of the corridor (i.e. include intersections). Bike projects are included on pages 22-23. ***All projects identified in this document, including the recommended bike facility types, are subject to continued feasibility studies, as well as findings in each individual City (e.g. ongoing planning efforts).***

Key Map



3 Cal State LA Gateway

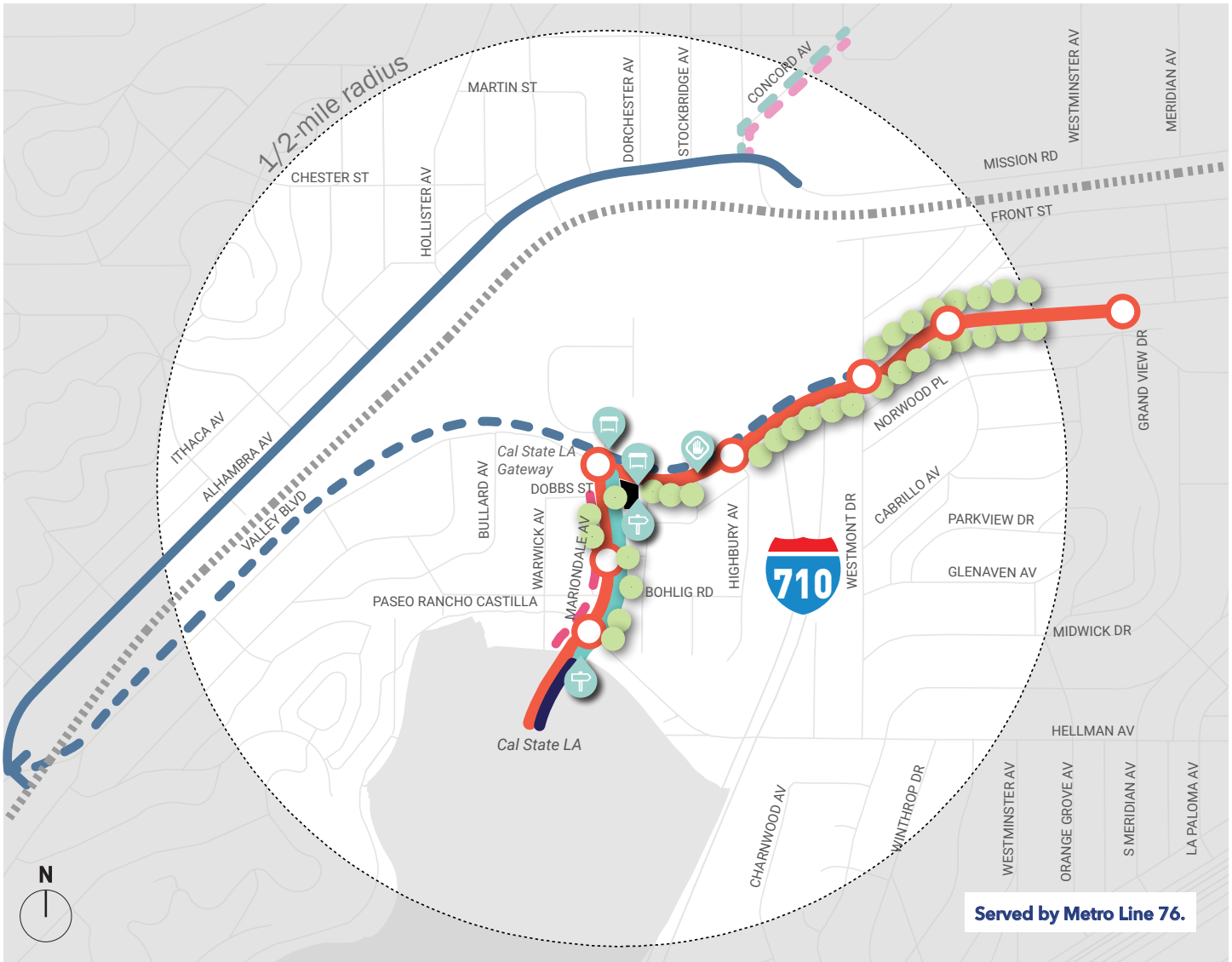
Mobility Hub Type 3, Campus | Los Angeles

Mobility Challenges

The Cal State LA Gateway mobility hub is north of an entrance to Cal State LA and west of a low-density commercial corridor along Valley Boulevard. Mobility challenges in this area include:

- Long blocks and narrow sidewalks along priority corridors.
- Difficulty locating the Cal State LA campus.
- Speeding cars along Valley Boulevard.
- Lack of pedestrian lighting along priority corridors.
- Lack of shading along priority corridors.
- Incomplete crosswalks along priority corridors.

Priority Corridor	Reason for Inclusion
Valley Boulevard (Mariondale to Grand View)	Connects to commercial corridor to the east on Valley
Mariondale Avenue (Valley to Campus)	Leads to Cal State LA



Legend

- Mobility hub
- Priority corridor
- Rail line
- Add/improve sidewalk & amenities
- Add pedestrian lighting
- Add street trees
- Add/improve crosswalk
- Improve bus stop
- Add wayfinding
- Add traffic calming
- Existing bike lane (Class II)
- City-proposed bike route (Class III)
- City-proposed bike lane (Class II)
- 710 Mobility Hub Project proposed greenway (Class III)
- 710 Mobility Hub Project proposed bike lane (Class II)

3 Cal State LA Gateway

Pedestrian Project List & Key Map

ID	Corridor/Location	Extents	Improvements (length, count, & details)
1A	Mobility Hub	At Valley / Mariondale	• Wayfinding signs (4 signs, one on each corner)
1B	Valley Boulevard	Mariondale to Grand View	• Infill missing street trees (1,000 LF, both sides of street) • Add street trees (1,700 LF, both sides of the street) • Add pedestrian lighting (1,000 LF, both sides of street) • Bus stop improvements (2 locations. Include bus shelter, seating, trash can) • Crosswalk enhancements (5 locations. Add continental striping to the east and north legs of Valley/Mariondale and add new continental crosswalk on west leg. Add new continental crosswalks and stop control to all legs of Valley/Highbury. Add new continental crosswalks to all legs of Valley/Westmont. Add new continental crosswalks to south, east, and north legs of Valley/Cabrillo. Add new continental crosswalks to south, east, and west legs of Valley/Grand View) • Add traffic calming measures (slow speed signage and possible planting in center turn lane/median)
1C	Mariondale Avenue	Valley to Campus	• Infill missing street trees (900 LF, both sides of street) • Add pedestrian lighting (900 LF, both sides of street) • Crosswalk enhancements (3 locations. Add continental striping to the east and north legs of Valley/Mariondale and add new continental crosswalk on west leg. Add new continental crosswalks on north and south legs at Mariondale/College Square. Add continental striping to all four legs of Paseo Rancho Castilla/Mariondale) • Wayfinding signs (4 signs, one at each corner at campus entry) • Add/improve sidewalk & amenities in campus, including new sidewlak on west side with street trees and pedestrian lighting, and widened sidewalk and street trees on east side (300 LF into campus)

Note: Projects that are located at the intersection of two Priority Corridors are included on each street in the project list, above. Dimensions are estimated and rounded. Corridor dimensions are provided for the full length of the corridor (i.e. include intersections). Bike projects are included on pages 22-23. ***All projects identified in this document, including the recommended bike facility types, are subject to continued feasibility studies, as well as findings in each individual City (e.g. ongoing planning efforts).***

Key Map

4 Daly / Main

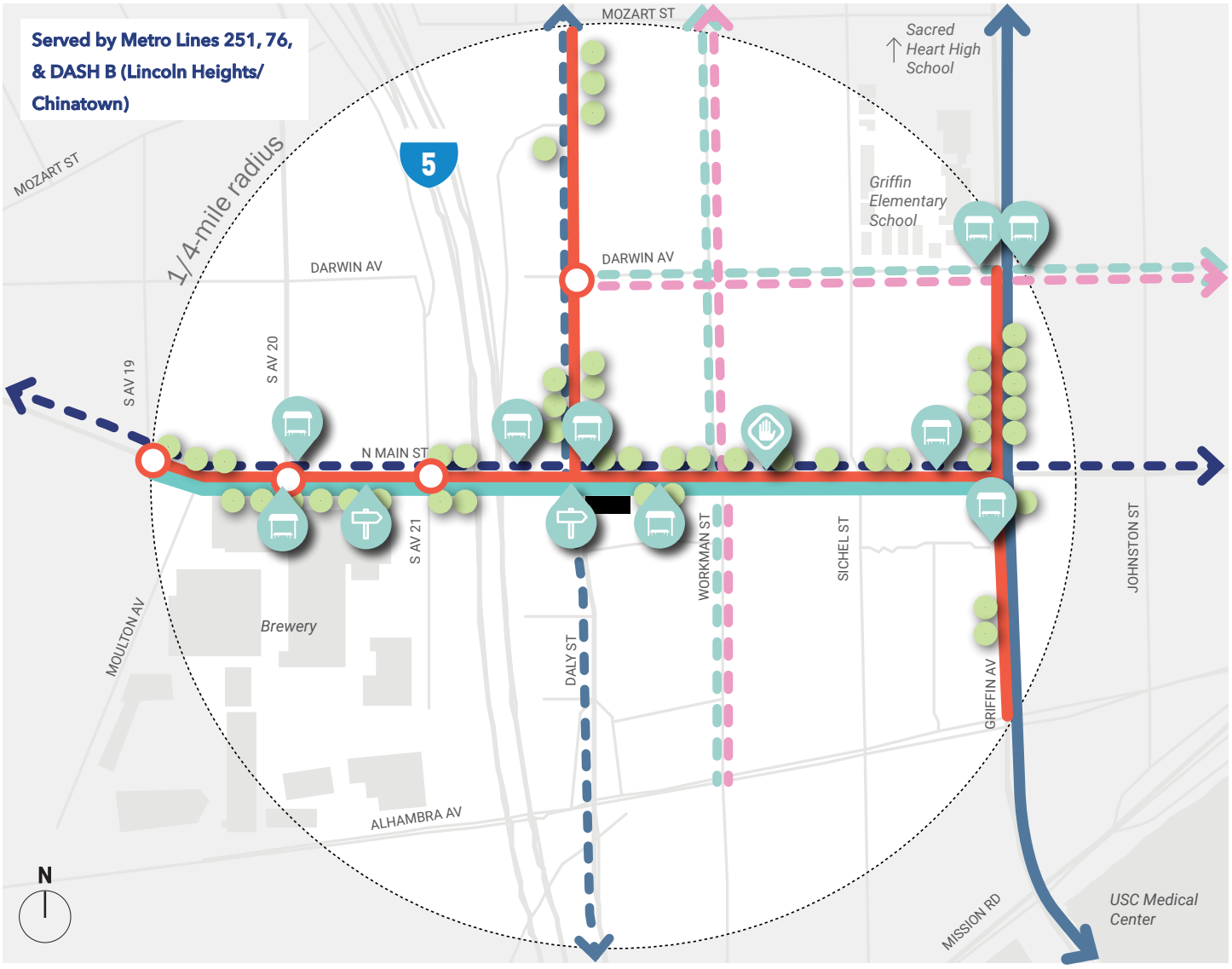
Mobility Hub Type 1, Bus Stop | Los Angeles

Mobility Challenges

The Daly / Main mobility hub is adjacent to small commercial plazas, east of a large community events space (the Brewery), southwest of local schools, and northwest of the USC Medical Center. Mobility challenges in this area include:

- Freeway (I-5) creates challenges for pedestrian circulation.
- Lack of pedestrian lighting along priority corridor.
- Lack of shading and crosswalks along priority corridors.
- Missing bus shelters.

Priority Corridor	Reason for Inclusion
Daly Street (Main to Mozart)	Leads residential areas
Main Street (Griffin to Avenue 19)	Leads to Lincoln Park on the east and the Brewery to the west
Griffin Avenue (Darwin to Alhambra)	Leads to Griffin Elementary School to the north and USC Medical Center to the south



Legend

- Mobility hub
- Priority corridor
- Add pedestrian lighting
- Add street trees
- Add/improve crosswalk
- Improve bus stop
- Add wayfinding
- Add traffic calming
- Existing bike lane (Class II)
- City-proposed bike route (Class III)
- City-proposed bike lane (Class II)
- City-proposed bikeway (Class IV)
- 710 Mobility Hub Project proposed greenway (Class III)

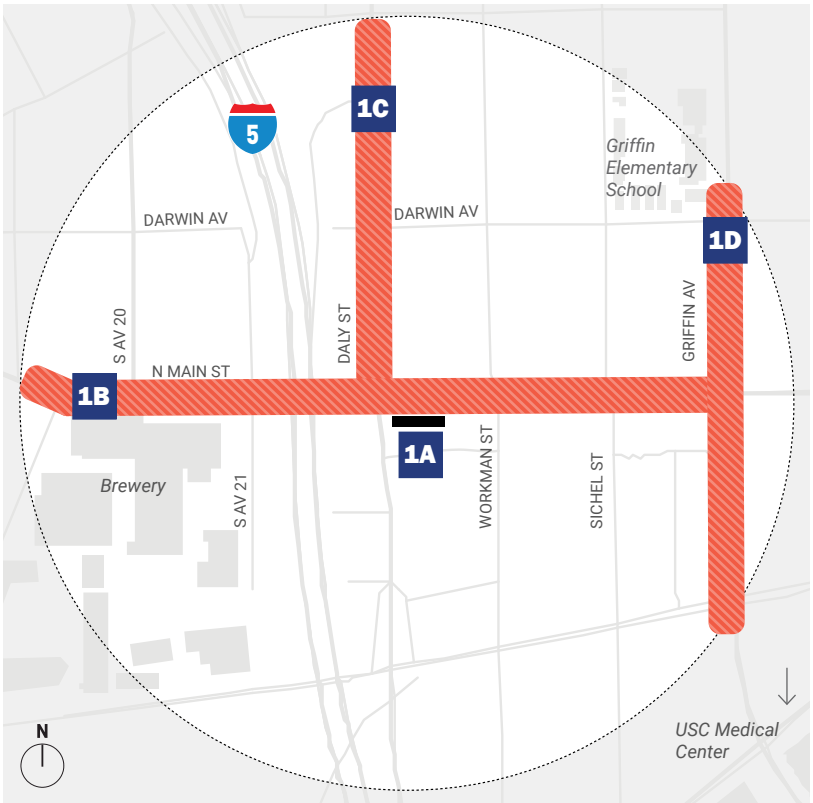
4 Daly / Main

Pedestrian Project List & Key Map

ID	Corridor/Location	Extents	Improvements (length, count, & details)
1A	Mobility Hub	At Daly / Main	• Wayfinding signs (4 signs, one on each corner)
1B	Main Street	Griffin to Avenue 19	• Infill missing street trees (2,300 LF, both sides of street) • Add pedestrian lighting (2,300 LF, both sides of street) • Bus stop improvements (6 locations. Include bus shelter, seating, and trash can) • Crosswalk enhancements (3 locations. Add continental striping to north leg and new continental crosswalks to east, south, and west legs of Main/Ave 21. Add continental striping to north, west, and east leg of Main/Ave 20. Add new continental crosswalks to north, west, and east leg of Main/Ave 19. • Wayfinding (1 sign at entrance to Brewery) • Add traffic calming measures (speed humps)
1C	Daly Street	Main to Mozart	• Infill missing street trees (1,100 LF, both sides of street) • Crosswalk enhancements (1 location. Add continental striping to north leg and add new continental crosswalks to south, east, and west legs of Darwin/Daly)
1D	Griffin Avenue	Darwin to Alhambra Ave	• Infill missing street trees (1,200 LF, both sides of street) • Bus stop improvements (3 locations. Include bus shelter, seating, and trash can)

Note: Projects that are located at the intersection of two Priority Corridors are included on each street in the project list, above. Dimensions are estimated and rounded. Corridor dimensions are provided for the full length of the corridor (i.e. include intersections). Bike projects are included on pages 22-23. ***All projects identified in this document, including the recommended bike facility types, are subject to continued feasibility studies, as well as findings in each individual City (e.g. ongoing planning efforts).***

Key Map



5 Huntington / Monterey

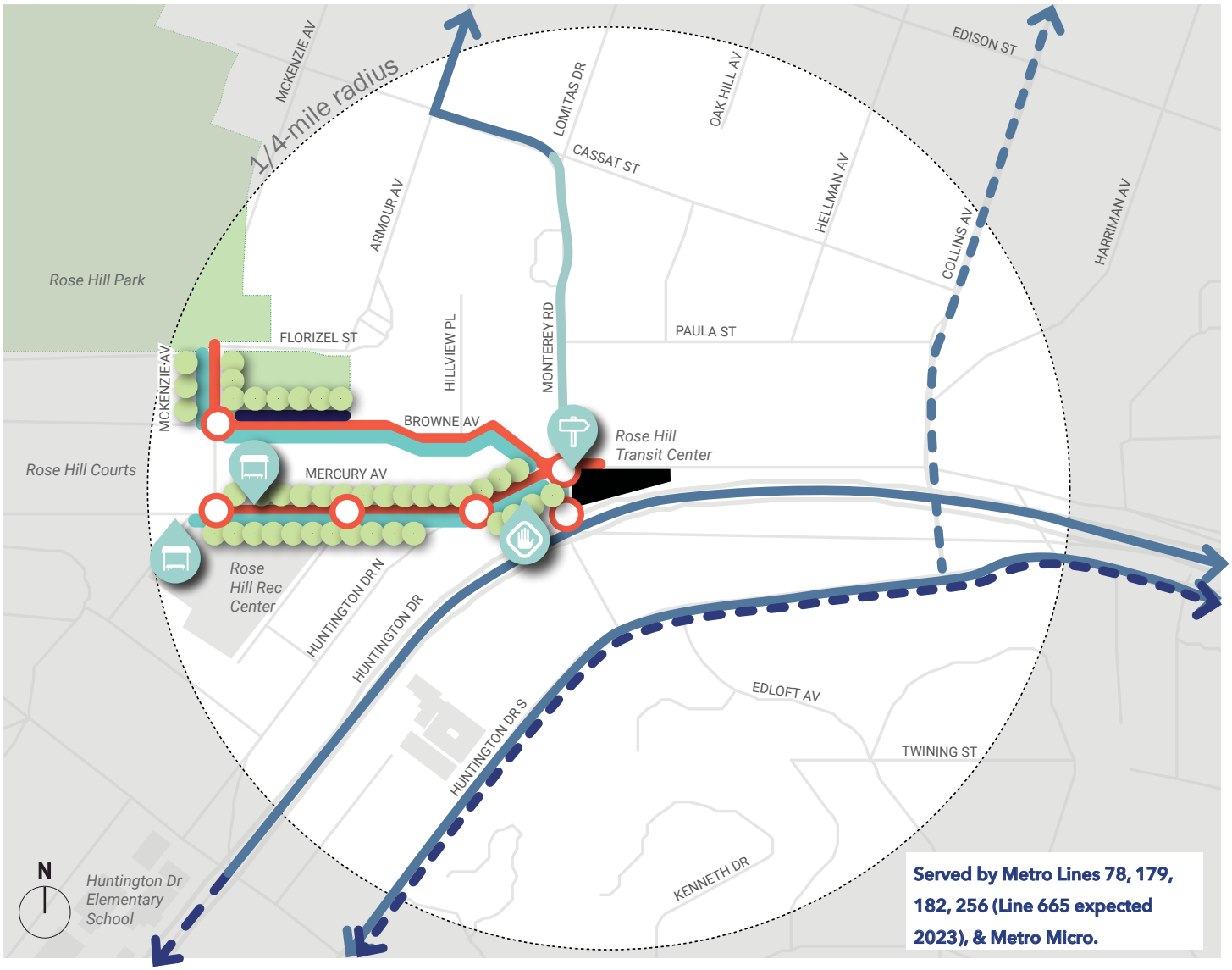
Mobility Hub Type 1, Bus Stop | Los Angeles

Mobility Challenges

The Huntington / Monterey mobility hub is southeast of the Rose Hill Park and east of the Rose Hill Recreation Center. The hub also lies along Huntington Drive, a main vehicular arterial. Mobility challenges in this area include:

- Unclear circulation and access to nearby park and Rec Center.
- Long blocks without human-scaled frontages.
- Speeding cars along Huntington Drive.
- Lack of pedestrian lighting and shading along priority corridors.
- Incomplete crosswalks along priority corridors.

Priority Corridor	Reason for Inclusion
Browne Avenue (Mckenzie to Monterey)	Leads to Rose Hill Park
Mercury Avenue (Mckenzie to Huntington Dr N)	Leads to Rose Hill Recreation Center
Huntington Drive North (Monterey to Mercury)	Connects to Mercury Avenue
Mckenzie Avenue (Brown to Florizel)	Leads to Rose Hill Park



Legend

- Mobility hub
- Priority corridor
- Add/improve sidewalk
- Add pedestrian lighting
- Add street trees
- Add/improve crosswalk
- Improve bus stop
- Add wayfinding
- Add traffic calming
- Existing bike route (Class III)
- Existing bike lane (Class II)
- City-proposed bike lane (Class II)
- City-proposed bikeway (Class IV)

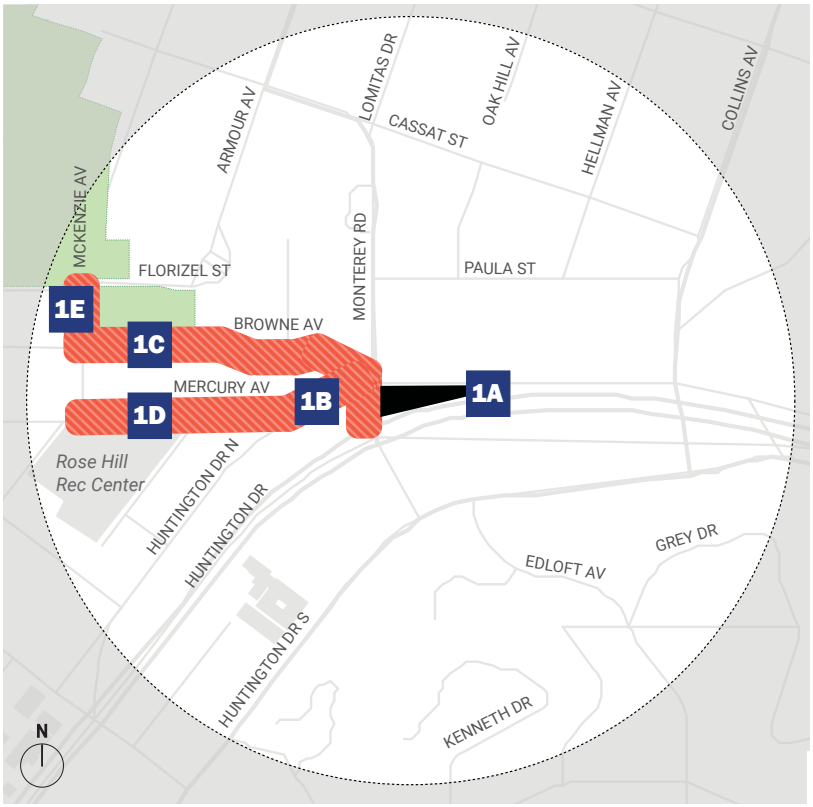
5 Huntington / Monterey

Pedestrian Project List & Key Map

ID	Corridor/Location	Extents	Improvements (length, count, & details)
1A	Mobility Hub	At Huntington / Monterey	• Wayfinding signs (4 signs, one on each corner)
1B	Huntington Drive North	Monterey to Mercury	• Add street trees (250 LF, both sides of street) • Add pedestrian lighting (250 LF, both sides of street) • Crosswalk enhancements (2 locations. Add continental striping to the north and east legs of Huntington Dr N/Monterey. Add new continental crosswalk to southwest leg of Huntington Dr N/Mercury) • Add traffic calming measures (speed humps)
1C	Browne Avenue	Mckenzie to Monterey	• Maintain and clear sidewalk (340 LF, north side of street) • Add street trees (340 LF, north side of street) • Add pedestrian lighting (900 LF, both sides of street) • Crosswalk enhancements (1 location. Add new continental crosswalks to all four legs of Browne/Mckenzie)
1D	Mercury Avenue	Mckenzie to Huntington Dr N	• Add street trees (500 LF, both sides of street) • Add pedestrian lighting (600 LF, both sides of street) • Bus stop improvements (2 locations. Include bus shelter, seating, and trash can) • Crosswalk enhancements (3 locations. Add new yellow continental crosswalks to west and north legs of Mercury/McKenzie. Add new yellow continental crosswalks to east and south legs of Mercury/Beryl. Add new continental crosswalk to southwest leg of Huntington Dr N/Mercury)
1E	Mckenzie Avenue	Brown to Florizel	• Add street trees (400 LF, both sides of street) • Add pedestrian lighting (400 LF, both sides of street) • Crosswalk enhancements (1 location. Add new continental crosswalks to all four legs of Browne/Mckenzie)

Note: Projects that are located at the intersection of two Priority Corridors are included on each street in the project list, above. Dimensions are estimated and rounded. Corridor dimensions are provided for the full length of the corridor (i.e. include intersections). Bike projects are included on pages 22-23. ***All projects identified in this document, including the recommended bike facility types, are subject to continued feasibility studies, as well as findings in each individual City (e.g. ongoing planning efforts).***

Key Map



6 Main / Fremont

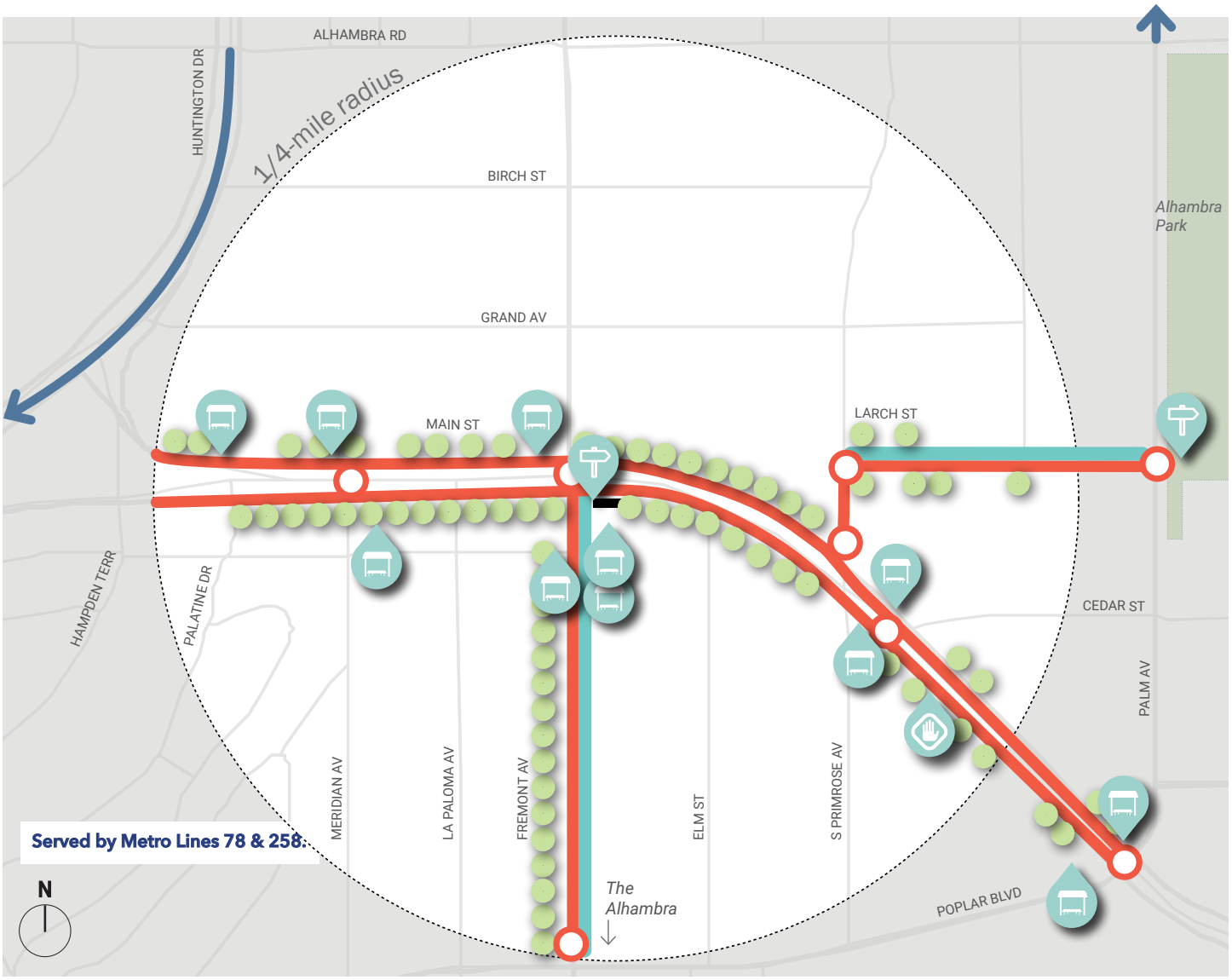
Mobility Hub Type 1, Bus Stop | Alhambra

Mobility Challenges

The Main / Fremont mobility hub connects to commercial areas to the east and west, and is southwest of Alhambra Park and north of the Alhambra Development. Mobility challenges in this area include:

- Speeding cars along Main Street.
- Lack of shading along priority corridors.
- Missing bus shelters.
- Incomplete crosswalks along priority corridors.

Priority Corridor	Reason for Inclusion
Main Street (Hampden to Poplar)	Connects commercial areas
Larch Street. Incl Primrose segment (Primrose to Palm)	Leads to Alhambra Park
Fremont Avenue (Main to Poplar)	Leads to The Alhambra



Legend

- Mobility hub
- Priority corridor
- Add pedestrian lighting
- Add street trees
- Add/improve crosswalk
- Improve bus stop
- Add wayfinding
- Add traffic calming
- Existing bike lane (Class II)

The City of Alhambra is in the process of preparing a Citywide Bicycle and Pedestrian Plan. All future bicycle plans in Alhambra will be formulated as part of that plan.

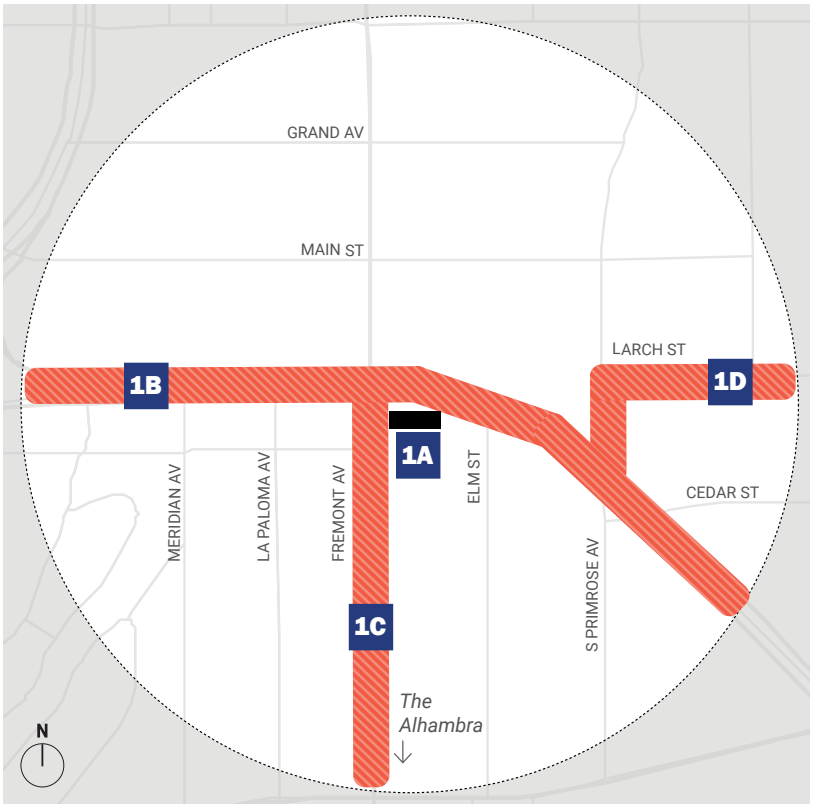
6 Main / Fremont

Pedestrian Project List & Key Map

ID	Corridor/Location	Extents	Improvements (length, count, & details)
1A	Mobility Hub	At Main / Fremont	• Wayfinding signs (4 signs, one on each corner)
1B	Main Street	Hampden to Poplar	• Add street trees (4,000 LF, both sides of street) • Investigate the potential application of traffic calming measures • Bus stop improvements (9 locations. Include bus shelter, seating, and trash can) • Crosswalk enhancements (5 locations. Add continental crosswalks to the east leg of Main/Meridian. Add continental striping to all four legs of Main/Fremont and to the north leg of Main/Primrose, across Primrose. Add a new continental crosswalk to the northwest leg of Main/Cedar, across Main. Add continental striping on west and east legs and new continental crosswalk at Main/Poplar.)
1C	Fremont Avenue	Main to Poplar	• Add street trees (1,200 LF, west side of street) • Add pedestrian lighting (1,200 LF, both sides of street) • Bus stop improvements (2 locations. Include bus shelter, seating, and trash can) • Crosswalk enhancements (2 locations. Add continental striping on all legs of Fremont/Poplar and all legs of Fremont/Main.)
1D	Larch Street (Incl Primrose segment)	Primrose to Palm	• Infill missing street trees (800 LF, both sides of street) • Add pedestrian lighting (800, both sides of street) • Crosswalk enhancements (3 locations. Add continental crosswalks to the north, east, and south legs of Larch/Primrose and the south leg of Larch/Palm. Add continental striping to all four legs of Main/Fremont and to the north leg of Main/Primrose, across Primrose.) • Wayfinding sign (1 sign, near park entrance)

Note: Projects that are located at the intersection of two Priority Corridors are included on each street in the project list, above. Dimensions are estimated and rounded. Corridor dimensions are provided for the full length of the corridor (i.e. include intersections).
The City of Alhambra is in the process of preparing a Citywide Bicycle and Pedestrian Plan. All future bicycle plans in Alhambra will be formulated as part of that plan.

Key Map



7 Marengo / State

Mobility Hub Type 3, Campus | Los Angeles

Mobility Challenges

The Marengo / State mobility hub is located on the USC Medical Center campus. The hub is directly north of nearby commercial stores and is southwest of Hazard Park. Mobility challenges in this area include:

- Speeding cars along Marengo Street.
- Lack of pedestrian lighting along Marengo Street.
- Lack of shading along priority corridors.
- Missing bus shelters.
- Incomplete crosswalks along priority corridors.

Priority Corridor	Reason for Inclusion
Marengo Street (Mission to Chicago)	Main corridor that leads to the USC Medical School entrance
State Street (Marengo to Zonal)	Connects through the USC Medical Center campus
Zonal Avenue (State to San Pablo)	Leads to Hazard Park
Chicago Street (Marengo to Charlotte)	Leads to park and nearby school

Legend

- Mobility hub
- Priority corridor
- Add pedestrian lighting
- Add street trees
- Add/improve crosswalk
- Improve bus stop
- Add wayfinding
- Add traffic calming
- Existing bike lane (Class II)
- City-proposed bike route (Class III)
- City-proposed bike lane (Class II)
- City-proposed bikeway (Class IV)
- 710 Mobility Hub Project proposed greenway (Class III)
- 710 Mobility Hub Project proposed bike lane (Class II)

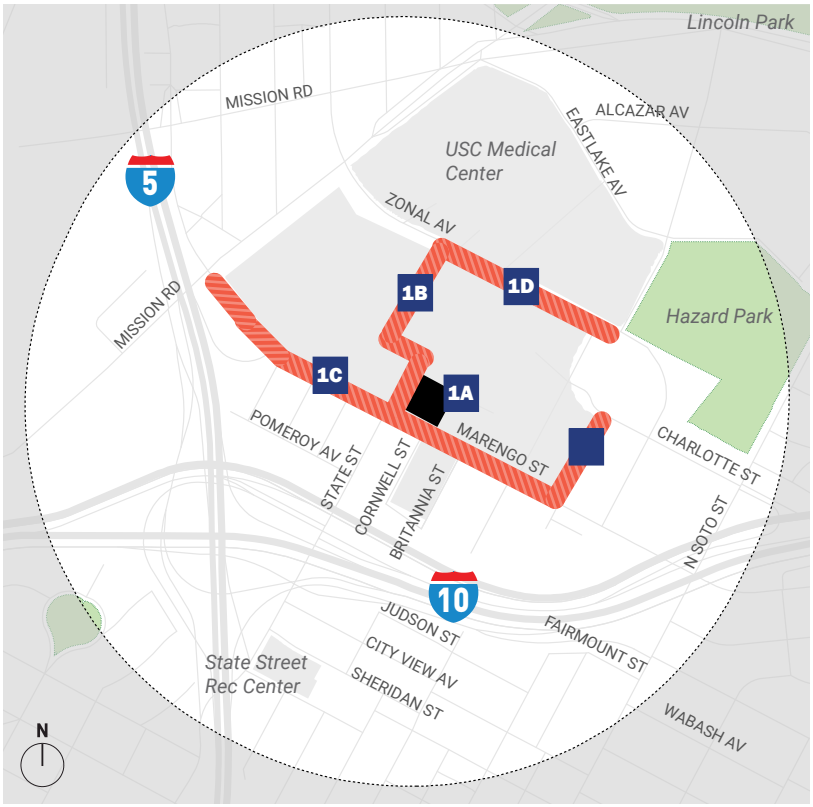
7 Marengo / State

Pedestrian Project List & Key Map

ID	Corridor/Location	Extents	Improvements (length, count, & details)
1A	Mobility Hub	At Marengo/ State	• Wayfinding signs (4 signs, one on each corner)
1B	State Street	Marengo to Zonal	• Add street trees (1,500 LF, both sides of street) • Bus stop improvements (1 location. Include bus shelter, seating, and trash can) • Crosswalk enhancement (1 location. Add continental crosswalks to east, west, and south legs of Zonal/State)
1C	Marengo Street	Mission to Chicago	• Infill missing street trees (2,100 LF, both sides of street) • Bus stop improvements (8 locations. Include bus shelter, seating, and trash can) • Add pedestrian lighting (2,100 LF, both sides of street) • Crosswalk enhancements (3 locations. Add new continental crosswalks to the east, south, and west legs of Marengo/Mark. Add yellow continental crosswalks on the east, south and west legs of Marengo/Cummings. Add yellow continental striping to north and south legs of Marengo/Chicago.) • Add traffic calming measures (slow speed signage)
1D	Zonal Avenue	State to San Pablo	• Add street trees (850 LF, south side of street) • Bus stop improvement (1 location. Include bus shelter, seating, and trash can) • Crosswalk enhancement (1 location. Add continental crosswalks to east, west, and south legs of Zonal/State)
1E	Chicago Street	Marengo to Charlotte	• Add street trees (620 LF, east side of street) • Add pedestrian lighting (620 LF, both sides of street)

Note: Projects that are located at the intersection of two Priority Corridors are included on each street in the project list, above. Dimensions are estimated and rounded. Corridor dimensions are provided for the full length of the corridor (i.e. include intersections). Bike projects are included on pages 22-23. ***All projects identified in this document, including the recommended bike facility types, are subject to continued feasibility studies, as well as findings in each individual City (e.g. ongoing planning efforts).***

Key Map



8 Mission / Meridian

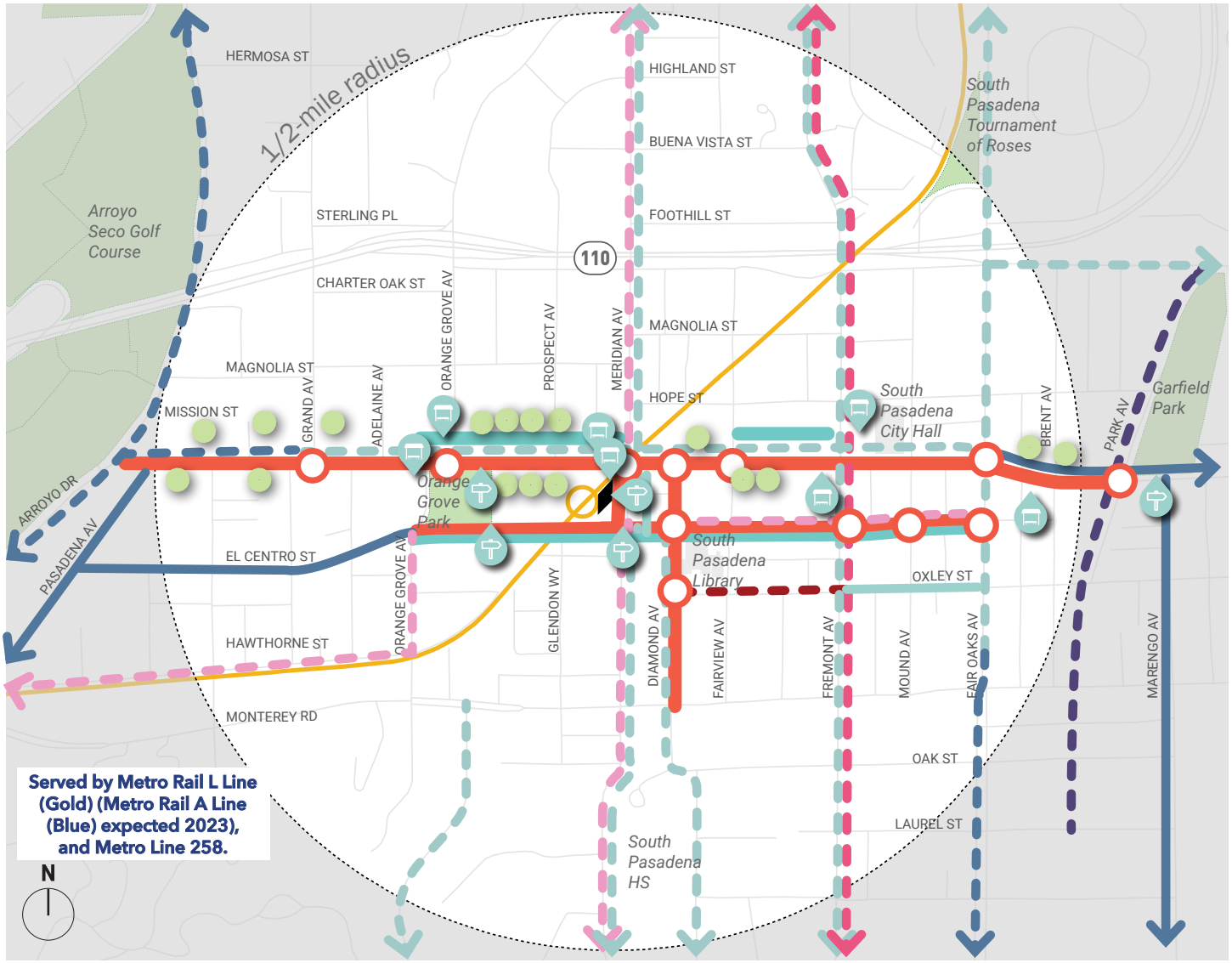
Mobility Hub Type 2, Rail Station | South Pasadena

Mobility Challenges

The Mission / Meridian mobility hub lies east of the South Pasadena Station on the Metro L Line (Gold). The hub is near a central commercial area along Mission Street, east of Orange Grove Park, north of South Pasadena High School, and west of the South Pasadena City Hall and Library. Mobility challenges in this area include:

- Lack of shading along priority corridors.
- Missing bus shelters.
- Incomplete crosswalks along priority corridors.

Priority Corridor	Reason for Inclusion
Mission Street (Arroyo to Park)	Key commercial corridor and connects to South Pasadena Farmer's Market, City Hall, and Garfield Park
Meridian Avenue (El Centro to Mission)	Immediately adjacent to the Mobility Hub
Diamond Avenue (Mission to Monterey)	Leads to South Pasadena Library and South Pasadena High School
El Centro Street (Orange Grove to Fairoaks)	Leads to Orange Grove Park



Legend

- Mobility hub
- Priority corridor
- Metro station
- Add pedestrian lighting
- Add street trees
- Add/improve crosswalk
- Improve bus stop
- Add wayfinding
- Add traffic calming
- Existing bike route (Class III)
- Existing bike lane (Class II)
- City-proposed greenway (Class III)
- City-proposed bike lane (Class II)
- City-proposed bike path (Class I)
- 710 Mobility Hub Project proposed greenway (Class III)
- 710 Mobility Hub Project proposed bike lane (Class II)
- 710 Mobility Hub Project separated bikeway (Class IV)

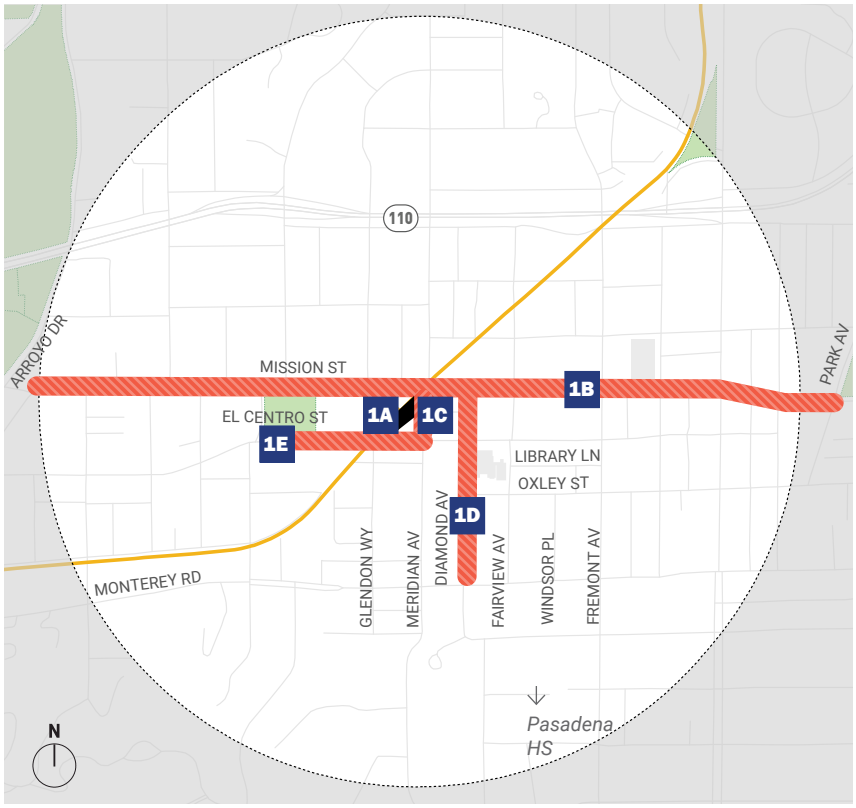
8 Mission / Meridian

Pedestrian Project List & Key Map

ID	Corridor/Location	Extents	Improvements (length, count, & details)
1A	Mobility Hub	At Mission/ Meridian	• Wayfinding signs (4 signs, one in plaza and one on each of the other corners)
1B	Mission Street	Arroyo to Park	• Wayfinding sign (2 signs. 1 sign near Orange Grove Park entrance and one sign near Garfield Park) • Infill missing street trees (1 mi, both sides of street) • Infill missing pedestrian lighting (1,500 LF, both sides of street) • Bus stop improvements (7 locations. Include bus shelter, seating, and trash can) • Crosswalk enhancements (7 locations. Add continental crosswalks and stop control to all legs of Mission/Park. Add specialty paving to all legs of Mission/Fair Oaks and Mission/Meridian. Add continental crosswalk to the east leg of Mission/Fairview, the east leg of Mission/Orange Grove, the east leg of Mission Diamond, and the east leg of Mission/Grand.)
1C	Meridian Avenue	El Centro to Mission	• Infill/refresh planting in center median • Add pedestrian lighting (300 LF, both sides of street) • Wayfinding signs (4 signs, one on each corner of Meridian/El Centro)
1D	Diamond Avenue	Mission to Monterey	• Crosswalk enhancements (3 locations. Add a continental crosswalk to the east leg of Diamond/Mission. Add a continental crosswalk to the west leg of Diamond/El Centro. Add continental crosswalks to the north, east, and south legs of Diamond/Oxley.)
1E	El Centro Street	Orange Grove to Meridian	• Wayfinding signs (1 sign at Orange Grove Park entrance and 4 signs, 1 on each corner of Meridian/El Centro) • Add pedestrian lighting (3,000 LF, both sides of street) • Crosswalk enhancements (4 locations. Add a continental crosswalk to the west leg of El Centro/Diamond. Add continental crosswalks to all legs of El Centro/Fremont and El Centro/ Mound. Refresh the specialty paving for all legs of El Centro/Fair Oaks.)

Note: Projects that are located at the intersection of two Priority Corridors are included on each street in the project list, above. Dimensions are estimated and rounded. Corridor dimensions are provided for the full length of the corridor (i.e. include intersections). Bike projects are included on pages 22-23. ***All projects identified in this document, including the recommended bike facility types, are subject to continued feasibility studies, as well as findings in each individual City (e.g. ongoing planning efforts).***

Key Map



9 Main / Palm / Raymond

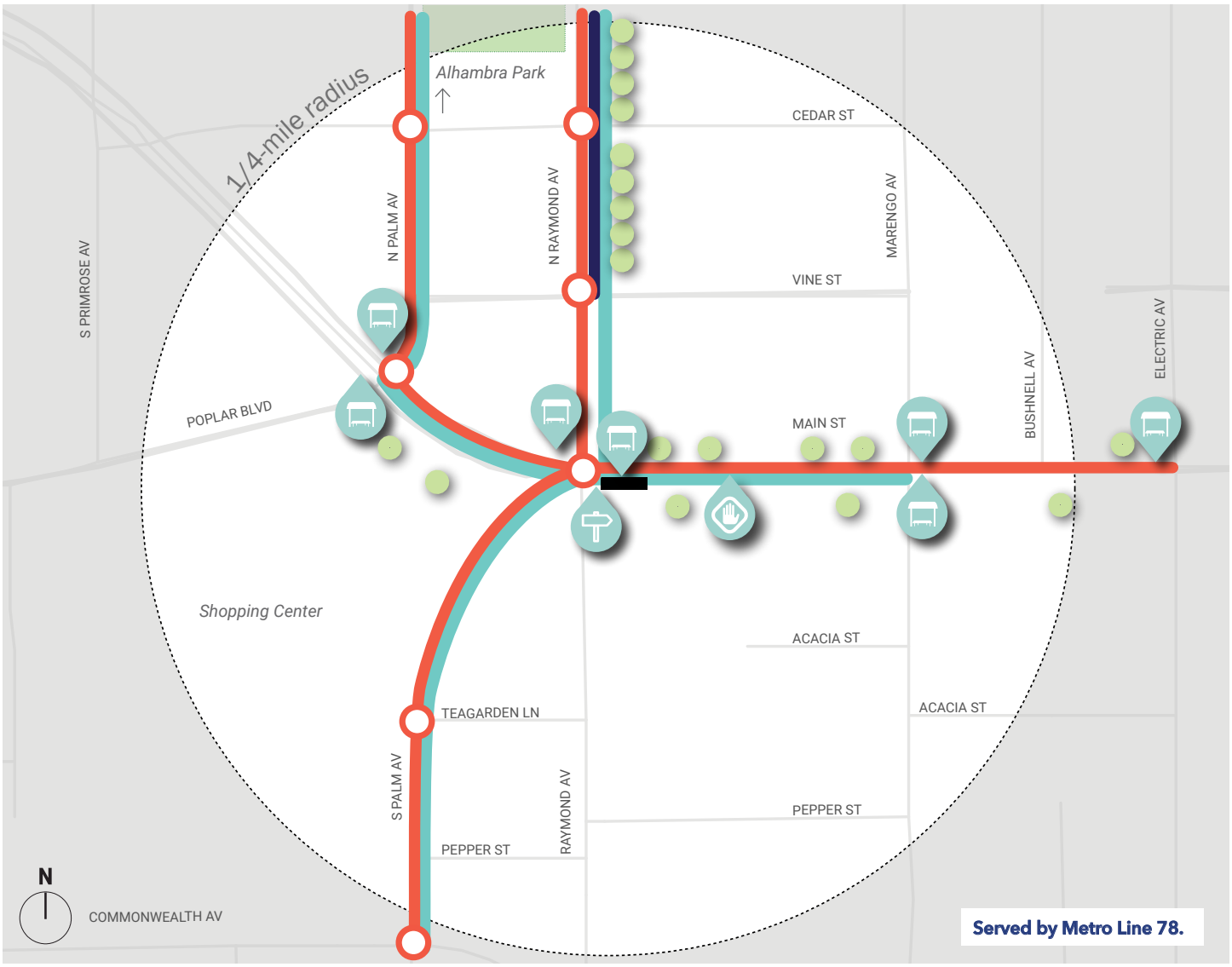
Mobility Hub Type 1, Bus Stop | Alhambra

Mobility Challenges

The Main / Palm mobility hub lies south of Alhambra Park, northeast of a large shopping center, and west of a commercial corridor along Main street. Mobility challenges in this area include:

- Speeding cars along Main Street.
- Lack of pedestrian lighting along Main Street.
- Lack of shading along priority corridors.
- Missing bus shelters.
- Incomplete crosswalks along priority corridors.

Priority Corridor	Reason for Inclusion
Main Street (N Palm to Electric)	Connects to shopping center and commecial corridor to east
S Palm Avenue (Main to Commonwealth)	Leads to major shopping center to south
N Palm Avenue (Main to Larch)	Leads to Alhambra Park
Raymond Avenue (Main to Grand)	Leads to Alhambra Park



Legend

- Mobility hub
- Priority corridor
- Add/improve sidewalk
- Add pedestrian lighting
- Add street trees
- Add/improve crosswalk
- Improve bus stop
- Add wayfinding
- Add traffic calming

The City of Alhambra is in the process of preparing a Citywide Bicycle and Pedestrian Plan. All future bicycle plans in Alhambra will be formulated as part of that plan.

9 Main / Palm / Raymond

Pedestrian Project List & Key Map

ID	Corridor/Location	Extents	Improvements (length, count, & details)
1A	Mobility Hub	At Main / Palm	• Wayfinding signs (4 signs, one on each corner)
1B	Main Street	Palm to Electric	• Infill missing street trees (2,000 LF, both sides of street) • Add pedestrian lighting (1,500 LF, both sides of street) • Bus stop improvements (7 locations. Include bus shelter, seating, and trash can) • Crosswalk enhancements (2 locations. Add continental crosswalk on southeast leg and continental striping on southwest and northeast legs of Main/Poplar/Palm. Add new specialty paving on all four legs of Main/Palm/Raymond.)
1C	N Palm Avenue	Main to Larch	• Add pedestrian lighting (600 LF, both sides of street) • Crosswalk enhancements (2 locations. Add continental crosswalk on southeast leg and continental striping on southwest and northeast legs of Main/Poplar/Palm. Add continental crosswalks on all four legs of N Palm/Cedar.)
1D	S Palm Avenue	Main to Commonwealth	• Add pedestrian lighting (1,300 LF, both sides of street) • Crosswalk enhancements (3 locations. Add new specialty paving on all four legs of Main/Palm/Raymond. Add two new crosswalks at Palm/Teagarden. Add new continental striping on all legs of Palm/Commonwealth.)
1E	Raymond Avenue	Main to Grand	• Add trees and improve sidewalk on two blocks, Vine to Grand (1,100 LF, east side of street) • Add pedestrian lighting (1,600 LF, both sides of street) • Crosswalk enhancements (3 locations. Add new specialty paving on all four legs of Main/Palm/Raymond. Add yellow continental crosswalks on all four legs of Raymond/Cedar and continental crosswalks on all four legs of Raymond/Vine.)

Note: Projects that are located at the intersection of two Priority Corridors are included on each street in the project list, above. Dimensions are estimated and rounded. Corridor dimensions are provided for the full length of the corridor (i.e. include intersections).
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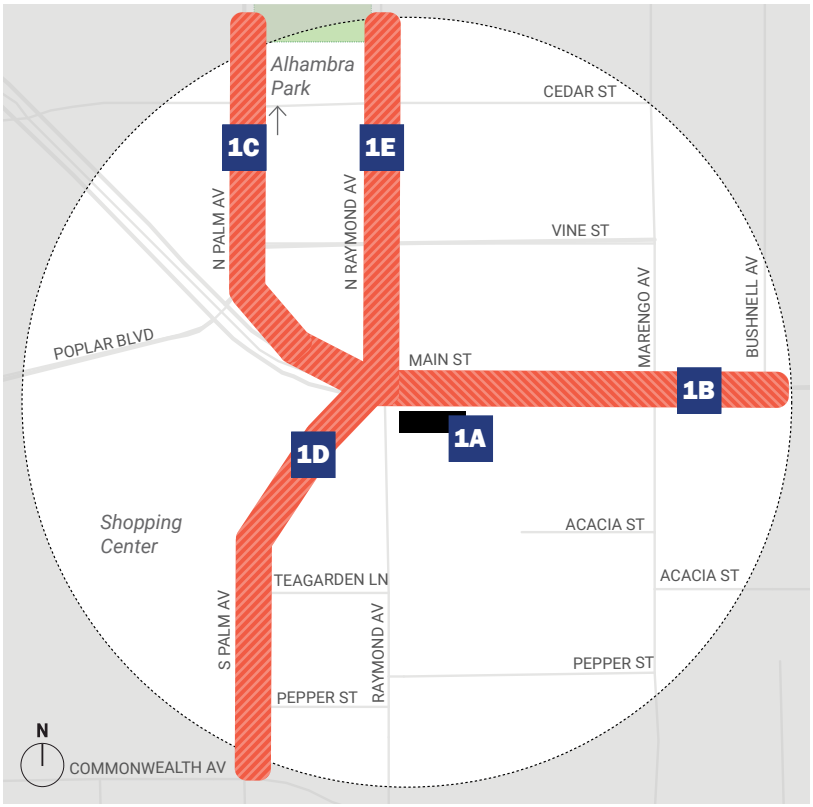
Key Map



10 Valley / Fremont

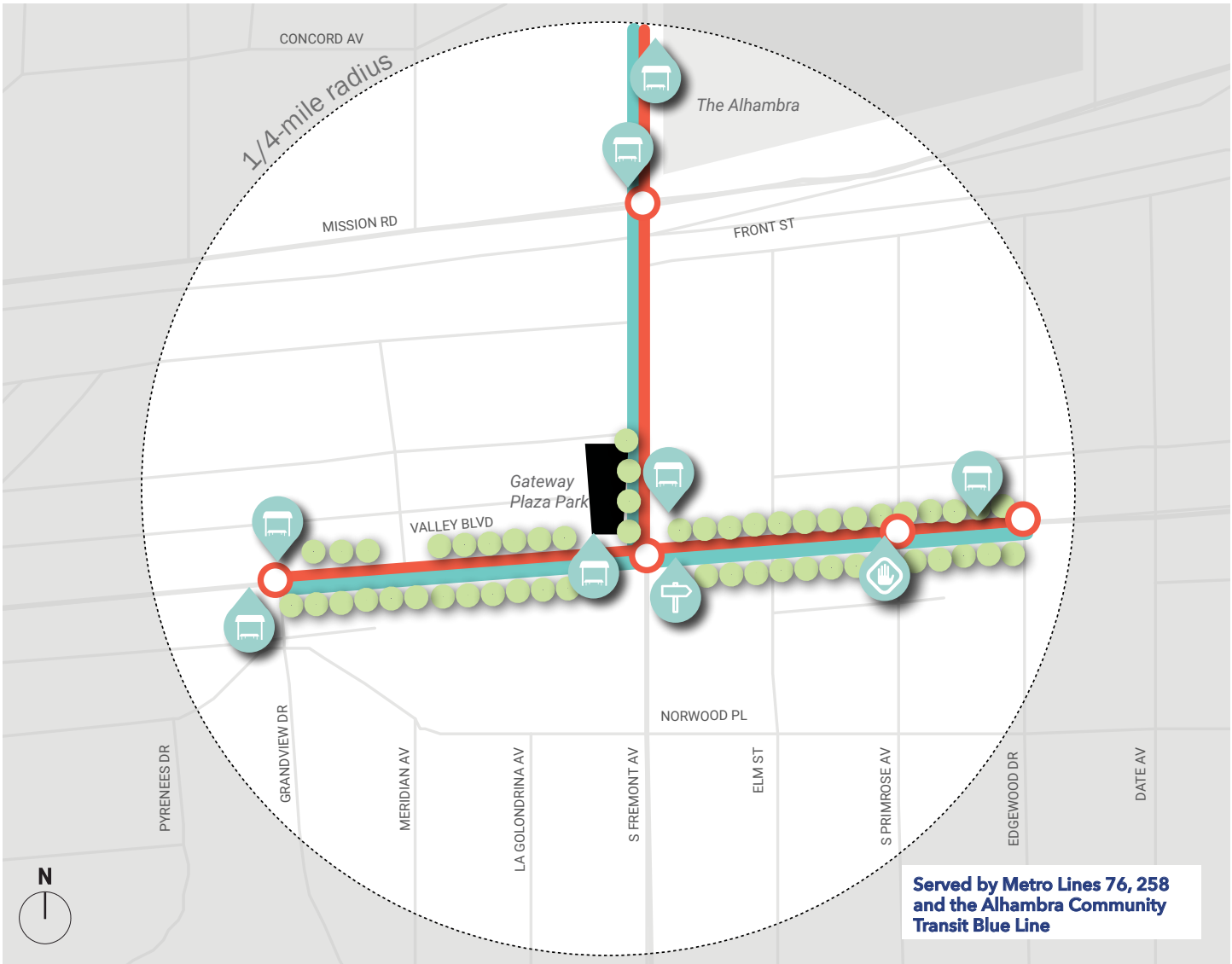
Mobility Hub Type 1, Bus Stop | Alhambra

Mobility Challenges

The Valley / Fremont mobility hub lies south of The Alhambra. The mobility hub also has commercial areas to the east and west along Valley Boulevard. Mobility challenges in this area include:

- Speeding cars along Valley Boulevard.
- Lack of pedestrian lighting along Valley Boulevard.
- Lack of shading along priority corridors.
- Missing bus shelters.
- Incomplete crosswalks along priority corridors.

Priority Corridor	Reason for Inclusion
Valley Boulevard (Grandview to Edgewood)	Connects to the commercial corridor
Fremont Avenue (Valley to Orange)	Leads to The Alhambra



Legend

- Mobility hub
- Priority corridor
- Add pedestrian lighting
- Add street trees
- Add/improve crosswalk
- Improve bus stop
- Add wayfinding
- Add traffic calming

The City of Alhambra is in the process of preparing a Citywide Bicycle and Pedestrian Plan. All future bicycle plans in Alhambra will be formulated as part of that plan.

10 Valley / Fremont

Pedestrian Project List & Key Map

ID	Corridor/Location	Extents	Improvements (length, count, & details)
1A	Mobility Hub	At Valley / Fremont	• Wayfinding signs (4 signs, one on each corner)
1B	Valley Boulevard	Grandview to Edgewood	• Add street trees (1,800 LF, both sides of street) • Add pedestrian lighting (1,800 LF, both sides of street) • Bus stop improvements (4 locations. Include bus shelter, seating, and trash can) • Crosswalk enhancements (4 locations. Add continental striping to the south, east, and west legs of Valley/Grandview. Add specialty paving to all four legs of Valley/Fremont. Add continental crosswalks to the north, west, and south legs of Valley/Primrose. Add continental striping to all four legs of Valley/Edgewood) • Investigate the potential application of traffic calming measures. Measures may include but are not limited to speed signage, reduced curb radii, etc.
1C	Fremont Avenue	Valley to Orange	• Infill missing street trees (220 LF, west side of street) • Add pedestrian lighting (2,500 LF, both sides of street) • Bus stop improvements (3 locations. Include bus shelter, seating, and trash can) • Crosswalk enhancements (2 locations. Add specialty paving to all four legs of Fremont/Valley and all four legs of Fremont/Mission.)

Note: Projects that are located at the intersection of two Priority Corridors are included on each street in the project list, above. Dimensions are estimated and rounded. Corridor dimensions are provided for the full length of the corridor (i.e. include intersections).
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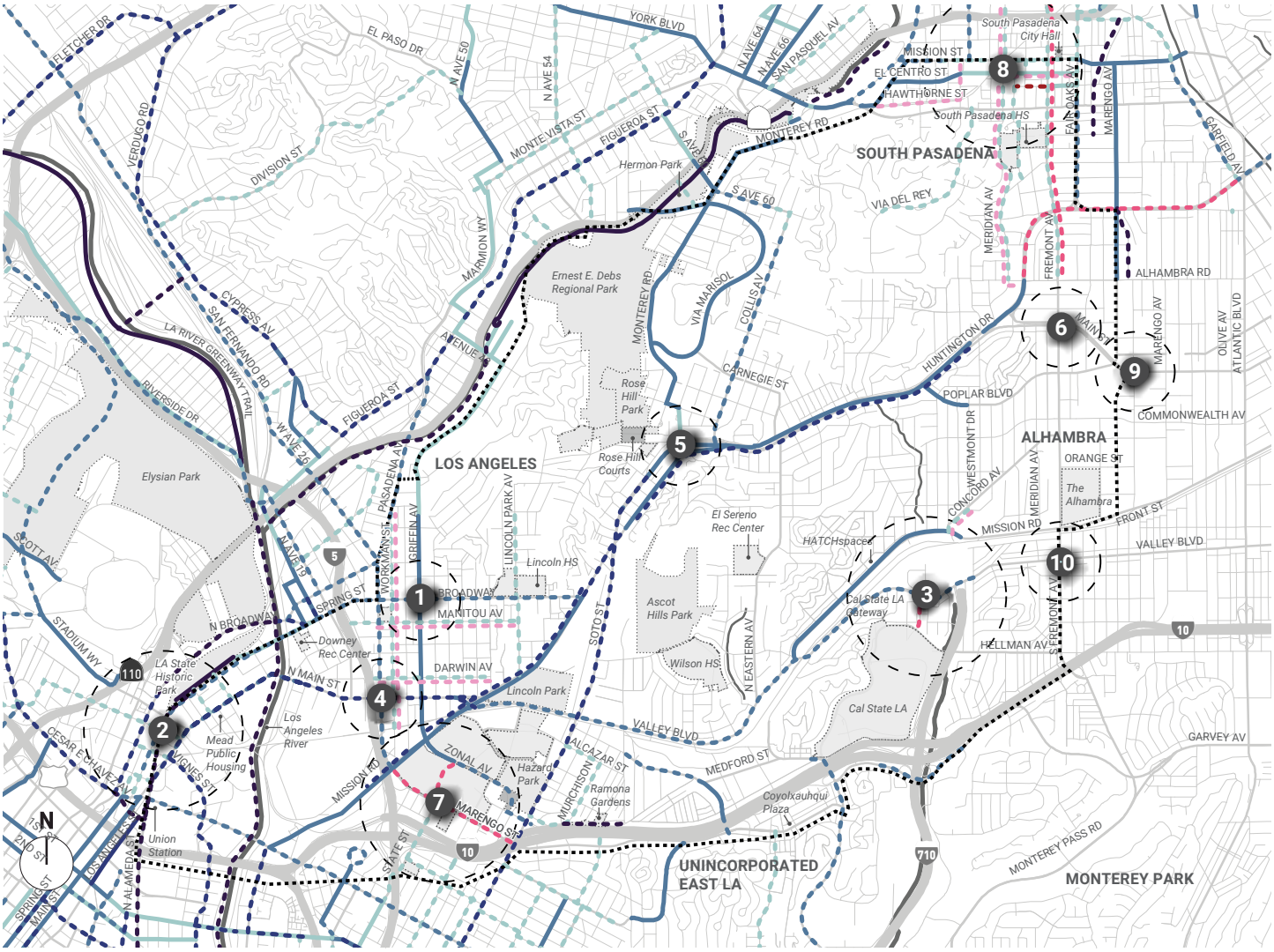
Key Map

Bike Connectivity

Improvements Overview

This map showcases recommended bike facilities that will connect the proposed mobility hubs to existing and city-proposed bike facilities. While this bike network is extensive, there are gaps that should be closed to ensure access. In addition, some of these bike facilities should be upgraded to provide safer, more pleasant routes. In several cases, the cities have proposed Class III bike routes, which should be upgraded to Neighborhood Greenways. Neighborhood Greenways include amenities like trees, bioswales, landscaping, wayfinding signage, pedestrian lighting, traffic circles, and traffic diverters. Existing and city-proposed bike facilities in and adjacent to Downtown LA sufficiently link the mobility hubs with the bike network, with the exception of a few city-proposed Class III Bike Routes in Lincoln Heights, which should be upgraded to Neighborhood Greenways. A few key bike connections have been recommended to better connect the USC Medical Center and Cal State LA into the bike network, for example along Marengo St and State St (through USC Medical Center) and Mariondale Ave (at the north end of Cal State LA). Through Alhambra, there are new bike connections that should be made, for example along Mission Rd, Fremont Ave, and Main St. In South Pasadena, the city-proposed facilities create a regular network, however some of these connections should be enhanced with Neighborhood Greenways.



City Existing/Proposed Facilities

- Mobility hub
- 1/4 mi around mobility hub
- 1/2 mi around mobility hub
- Study area
- Existing bike route (Class III)
- Existing bike lane (Class II)
- Existing separated bikeway (Class IV)
- Existing shared-use path (Class I)
- City proposed bike route (Class III)
- City proposed bike lane (Class II)
- City proposed separated bikeway (Class IV)
- City proposed shared-use path (Class I)

Project Proposed Facilities

- 710 Mobility Hub Project proposed greenway (Class III)
- 710 Mobility Hub Project proposed bike lane (Class II)
- 710 Mobility Hub Project proposed separated bikeway (Class IV)
- Parks, Recreation centers, higher education, high schools, civic centers, medical centers, development projects, & public housing projects
- Rivers

Bike Connectivity

Bike Project List

Corridor/Location	Extents	Length	Facility Type	Jurisdiction
Darwin Avenue	Daly to Thomas	3,100 LF	Greenway (Class III)	City of Los Angeles
Manitou Avenue	Daly to Lincoln Park	3,900 LF	Greenway (Class III)	City of Los Angeles
Marengo Street	Mission to Soto	4,100 LF	Bike lane (Class II)	City of Los Angeles
Mariondale Avenue	Valley to Paseo Rancho Castilla	950 LF	Bike lane (Class II)	City of Los Angeles
State Street	Marengo to Zonal	1,500 LF	Bike lane (Class II)	City of Los Angeles
Workman Street	Pasadena to Alhambra	1.1 MI	Greenway (Class III)	City of Los Angeles
Concord Avenue	Alhambra to Winchester	900 LF	Greenway (Class III)	City of South Pasadena
El Centro Street	Meridian to Fair Oaks	2,000 LF	Greenway (Class III)	City of South Pasadena
Fremont Avenue (North)	Alhambra to Columbia	1.8 MI	Bike lane (Class II)	City of South Pasadena
Hawthorne Street / Orange Grove Avenue	Pasadena to Mission	3,700 LF	Greenway (Class III)	City of South Pasadena
Huntington Drive	Alhambra to Garfield	7,700 LF	Bike lane (Class II)	City of South Pasadena
Meridian Avenue	Alhambra to Oliver	1.7 MI	Greenway (Class III)	City of South Pasadena
Oxley Street	Diamond to Fremont	950 LF	Separated bikeway (Class IV)	City of South Pasadena

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Chapter 4

Implementing the Hubs

Limited funding requires that the project team prioritize proposed improvements based on areas where residents need them the most and where they are easiest to implement. Some of the recommendations are more cost-effective or can be built alongside other street improvements, while others will require longer-term planning with multiple jurisdictions. The list of prioritized projects is flexible—if funding or opportunities arise for lower-prioritized projects ahead of a higher-prioritized group of projects, the appropriate authority will take the opportunity.

Photo credit: ActiveSGV

Prioritization

The project team and steering committee developed the prioritization process. Rather than individually prioritizing each recommendation within the walkshed of the mobility hubs, the project team grouped recommended projects based on the corridor and then prioritized the recommendations as a group. The recommended projects along each corridor work together to create a safe and comfortable streetscape for pedestrians and bicyclists, and grouping projects together creates an opportunity for all the recommendations to be implemented simultaneously rather than piecemeal. Each of the criteria includes a qualitative score from 1 to 3. The highest potential total score is 15 with higher scores indicating higher-prioritized projects. Equity is an important factor when determining how to implement the mobility hubs, however because equity was already considered when choosing the 10 priority hubs, the equity statistics near each hub are similar. For this reason, equity was not included in the prioritization process, as all of the hubs would have received nearly identical scores.

Table 3 shows the prioritization criteria for the corridors. Overall, the top three scoring corridors are Broadway between Daly Street and Gates Street, Valley Boulevard between Mariondale Avenue and Grand View Drive, and Fremont Avenue between Valley Boulevard and Orange Street. Each of these corridors received a score of 14.

All three of these corridors close a critical gap. The Broadway corridor is near Ascot Hills Park and Lincoln Park, Valley Boulevard near Mariondale Avenue connects to Cal State LA, and Fremont Avenue connects to the Keck School of Medicine and Alhambra Hospital Medical Center. Additionally, each of these corridors has the highest number of collisions, the most transit routes, and the most public comments within its respective hub location. **Table 4** shows the highest prioritized corridors and **Appendix D** shows the scores of all of the prioritized corridors.

Table 3: Prioritization Criteria

Criterion	Score	Description
Closes a critical gap	1 (does not close a critical gap)–3 (closes a critical gap)	Corridor includes a key destination as listed in the Existing Conditions Report
Safety	1 (fewer collisions)–3 (more collisions)	Number of bicyclist or pedestrian collisions
Transit connectivity	1 (fewer transit stops)–3 (more transit stops)	Number of transit stops on the corridor
Public support	1 (fewer comments)–3 (more comments)	Number of positive comments the recommendations in the corridor received
Cost-effectiveness	1 (more expensive)–3 (less expensive)	Cost estimates for all recommendations on the corridor

Cost Estimates

Cost estimates for the mobility hubs can vary based on the amenities at each hub, the size of the hub, and the existing infrastructure at each location. Since the mobility hub amenities included in this plan are in the conceptual design stage, it is difficult to determine the exact number of amenities required at each hub and the exact footprint of each amenity within the hub. Therefore, cost estimates were determined only for the first-last mile improvements and not the amenities within the hubs.

The following table shows planning level cost estimates for the active transportation first-last mile recommendations in each mobility hub corridor. These estimates are based on design and construction costs for comparable projects in nearby regions. These 2022 cost estimates will likely increase in the future. Additional studies and detailed design and engineering documents will be needed to create final costs for the recommendations. **Table 4** shows the total cost estimate for the highest prioritized corridors. **Appendix D** shows detailed cost estimate breakdowns for each corridor.

Table 4: Highest Prioritized Corridors

Street Corridor	Estimated Total Cost	Mobility Hub
Broadway between Daly St and Gates St	$567,645	Broadway/Griffin
Valley Blvd between Mariondale Ave and Grand View Dr	$720,587	Cal State LA Gateway
Fremont Ave between Valley Blvd and Orange St	$773,952	Valley/Fremont
Mariondale Ave between Valley Blvd and Cal State LA Campus	$530,860	Cal State LA Gateway
Main St between Griffin Ave and Ave 19	$734,545	Daly/Main
Marengo St between Mission Rd and Chicago St	$828,409	Marengo/State
Mission St between Arroyo Dr and Park Ave	$962,993	Mission/Meridian
Valley Blvd between Grand View Dr and Edgewood Dr	$501,272	Valley/Fremont
Meridian Ave between El Centro St and Mission St	$60,450	Mission/Meridian

Implementation Strategy Recommendations

Implementing the 10 mobility hubs will require coordination between all project jurisdictions, including transit agencies and Cal State LA. Innovative strategies will need to be used to meet competing demands and the differing needs of each hub's location.

Quick-Build and Quick Wins

Quick-build projects can be implemented quickly and cost-effectively, with the ability to be changed or removed as needed. Installing projects as quick-builds allows community members to immediately benefit from the improvement, and depending on the materials used and the amount of maintenance, the improvement can last for years. Quick-build projects also provide opportunities for community members to test and comment on the improvement in real-time, which can allow the project team to refine the project before implementing it with more permanent materials. Quick-build projects can also build community support for the future implementation of other recommended mobility hub projects.

Quick-build projects can use a variety of materials depending on the length and type of project including paint, pavement tape, cones, planters, flexible delineators and posts, and more. Examples of quick-build projects that can be implemented at the mobility hub locations include crosswalk enhancements, wayfinding signage, bus stop improvements, and bike lanes.

In addition to quick-build projects, quick-win projects can build momentum for the future of the mobility hubs. Quick-win projects are typically low-cost and relatively easy to install, and jurisdictions can implement them using existing funding sources like city Capital Improvement Programs or existing maintenance programs. These projects can include striping projects like crosswalks or bicycle lanes, or low-cost projects like installing wayfinding signage.

Pilot Programs

Pilot programs are similar to quick-build projects as they can provide the community with the opportunity to test out a program and provide feedback before the program's permanent installation. Jurisdictions that are implementing mobility hub elements may be able to reach out to private sector partners to try pilot programs in certain hub locations. Potential pilots could include bike share, micromobility like electric scooters, car share, electric vehicle and bicycle charging, and delivery lockers. In addition they could also include accessibility oriented services like microtransit and shuttles. These pilot programs provide an opportunity to immediately address a mobility need, while also capturing user data that can help inform the final installation of the program.

Pilot programs may be particularly useful for shared mobility services such as electric scooters and bike share. Jurisdictions should reference the National Association of City Transportation Officials' Guidelines for Regulating Shared Micromobility to establish guidelines for micromobility use at mobility hub locations. Provisions such as insurance requirements, parking options, and fleet size can be considerations that are determined and refined during the pilot program.

Curbside Management Strategies

At each mobility hub location, it will be important to create a curbside management strategy to balance the curbside interactions between pedestrians, bicyclists, drivers, transit services, rideshare services, parked vehicles, and multimodal users. Within each mobility hub, the leading jurisdiction must determine the priority of each transportation use and utilize design concepts, programming, and policies to create a management strategy. There are a variety of infrastructure options for curbside management such as floating bus islands, pedestrian medians, and bus-only traffic lanes, which can help separate different user groups and prevent conflicts. Allowing different uses at different times of the day, such as only allowing loading zones outside of peak hours, can ensure all transportation modes remain efficient. Jurisdictions may also choose to prioritize low-impact travel modes like active transportation, transit, and electric mobility devices to encourage people to choose these modes. Curbside management strategies will be most important in the mobility hubs with expected high demand, like at the Cal State LA Gateway and Chinatown Station where there are many amenities and services.

Placemaking Strategies

Placemaking strategies allow community identity to show through the built environment. Placemaking works to consider a community's needs and creates spaces where people want to live, work, and play. Placemaking can include elements like green infrastructure, public art, local businesses, kid oriented uses and play activities, and places for people to sit and interact with each other and the space. Placemaking at the mobility hubs can create a space where people want to use active transportation or take transit and can reflect community values and aesthetics through design.

Best Practices for Transit Operations at Mobility Hubs

Mobility hubs are the nexus of multiple modes of transportation, meaning riders are almost always switching between modes. Riders may be transferring between two bus routes, from a bike to a bus, or from a bus to a shared ride. How transit interacts with a mobility hub can have a significant impact on the customer experience. Implementing jurisdictions should apply these principles throughout to improve the customer experience and ensure seamless integration between modes.

Bus Stop Location: Bus stops should be located as close as possible to the mobility hub, minimizing the number of times riders need to cross the street to access a hub. For example, while bus stop placement best practices generally recommend having stops on the far side of an intersection, if the mobility hub is located on the nearside, the bus stop should be there as well, so riders do not have to cross the street to access the hub. This will help ensure passenger safety and keep buses moving by avoiding extra pedestrian traffic.

Wayfinding: Wayfinding at a transfer site is incredibly important. When getting off the bus riders are often disoriented, not sure which direction they are headed in. For riders making a transfer, they need to quickly find their next bus stop and ensure they are at the stop headed in the right direction. Wayfinding signs placed at bus stops can help riders know which way they need to go. Wayfinding signs should always be placed downstream on the site so the signs do not block the view of an oncoming bus.

Bus Accessibility: It is important to ensure that the other amenities located at the mobility hub (landscaping, benches, shelters, other vehicles) do not interfere with the bus and passenger right-of-way. ADA-accessible pathways must be clear from both the front and rear doors of buses at the stop.

Private and Joint Partner Ownership

For some mobility hubs, the local jurisdictions may find it advantageous for a private partner to take ownership of the hub. The City of Los Angeles has historically used private partnerships to outfit transit stops, which are mostly paid for with revenues from advertising at the stops. Private partnerships can help jurisdictions with the maintenance and construction of the hubs and can help implement the hubs with the latest technology. Jurisdictions can also partner with multiple private partners to implement different elements of the mobility hub. For example, partnerships can be made with micromobility services and bike share services to install parking for shared scooters and bikes.

Mobility Hubs Subcommittee

To maintain momentum for implementing the mobility hubs, and to keep roles and responsibilities clear, the mobility hubs jurisdictions should create a post-project mobility hubs subcommittee. This subcommittee should consist of as many mobility hub project team members as possible to ensure that project knowledge is passed onto the designers and engineers who work to finalize the mobility hub designs and begin the construction process. This subcommittee can also share resources for funding opportunities and lessons learned as each hub is implemented.

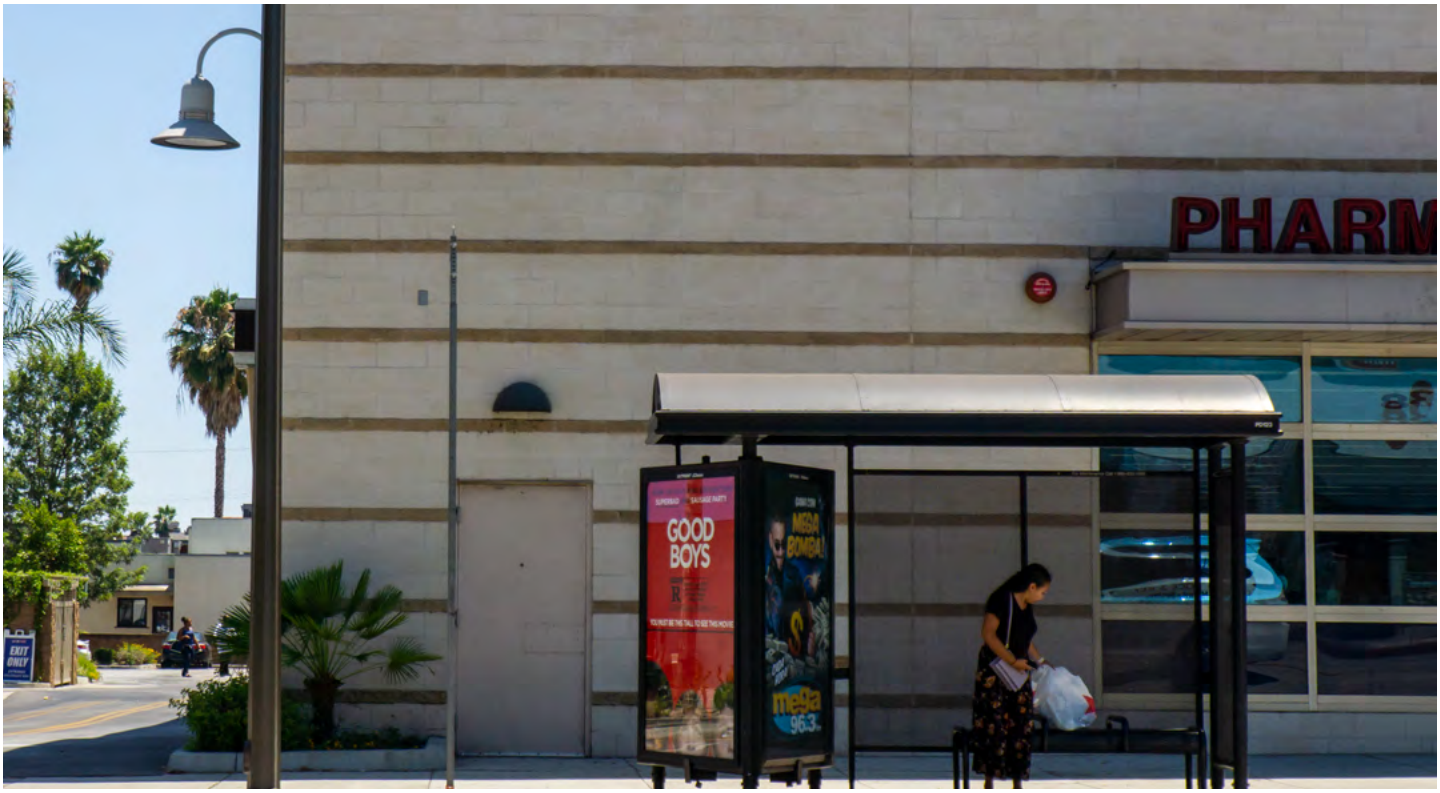

Photo credit: ActiveSGV

Maintenance Strategies

Maintaining the mobility hub locations is imperative to keep the hubs safe and comfortable. Mobility hubs that are not maintained may discourage residents from using them. The hubs should be regularly cleaned and cleared of debris and hazards, and jurisdictions should maintain the amenities at the hubs to ensure the hubs function properly. The amenities around the hubs, like signage, street trees, and bicycle facilities, should also be maintained so walking and biking to the hubs remain safe and comfortable.

Maintenance strategies may vary between the jurisdictions, and may also require collaboration to keep the hubs maintained at the same level.

Existing Maintenance Systems

In South Pasadena, the Street and Sewer Division of the Public Works Department is responsible for maintaining sidewalks and streets, and the Parks Division is responsible for maintaining trees in parks and medians.

Residents can use the public works service request portal for sidewalk maintenance and tree trimming. In the City of Alhambra, Public Works maintains trees, sidewalks, bus shelters, pavement markings, street lighting, and traffic control signals. Residents can report a public works issue through the City's online portal. In the City of Los Angeles, a branch of the Los Angeles Public Works Department, the Bureau of Street Services maintains trees, streets, sidewalks, pedestrian and bicycle facilities, and street furniture. Residents can use the MyLA311 webpage to make maintenance requests.

South Pasadena, Alhambra, and Los Angeles each have pavement management programs in which they evaluate the conditions of pavement throughout each city, and prioritize how and when the pavement should be updated. Mobility hub recommendations that involve street striping, like bike lanes or crosswalks, could be installed or maintained during regular pavement management.

Resources for Unhoused Community Members

The implementation of each mobility hub will require considerations for all users, including unhoused people, to ensure everyone has comfortable access to the mobility hub amenities. A comprehensive strategy is required to provide services for and engage with the unhoused population in the mobility hub jurisdictions.

The Los Angeles Homeless Services Authority (LAHSA) works with the City, County, and a network of nonprofit agencies to help people experiencing homelessness find temporary and permanent housing. LAHSA also engages the unhoused population to provide resources and connect people with appropriate services in their network. LAHSA administers federal, state, and local funding to service providers, and manages data and information to help assist with the distribution of resources. The County of Los Angeles also manages the Homeless Outreach Portal, which connects people to health and wellness services.

The City of Alhambra's Homeless Outreach Mental Evaluation Team works with people and families experiencing homelessness to provide counseling and treatment services, coordinate housing placement, and support life skills education. The City of South Pasadena also provides assistance to people experiencing homelessness by connecting them with nonprofits and resources that offer services like meals, free showers, and emergency shelters. Mobility hub jurisdictions should work together to share resources and coordinate homelessness services. A specific protocol may need to be developed for encampments at mobility hub locations that may disrupt access to the amenities and transit services at the hubs.

Program Recommendations

Non-infrastructure programs can work to complement the implementation of the mobility hubs and help residents and visitors understand the full potential of the active transportation facilities leading to the hubs. These programs can encourage, educate, and engage people to learn how to use roads safely as drivers, pedestrians, bicyclists, and micromobility users. Some of the following program recommendations are already established in the mobility hub jurisdictions, while others are recommendations to support existing programs

Safe Routes for Seniors

Safe Routes for Seniors programming caters to older adults to ensure they have safe and comfortable access to pedestrian infrastructure. Programming for Safe Routes for Seniors can include group walks to encourage walking as a social activity and training for older adults on how to use amenities at the mobility hubs like Wi-Fi and real-time arrival signs. Safe Routes for Seniors programming also can highlight inadequate pedestrian infrastructure that jurisdictions should update, such as areas that need longer crossing signal times.

Safe Routes to School

Safe Routes to School (SRTS) programs encourage walking and biking to school as a safe and fun mode of transportation. SRTS programs typically include programming components that teach students the rules of the road and how to safely walk and roll to school such as how to use a crosswalk and how to properly wear a helmet. These programs also encourage students to use active transportation through events like walking school buses and walk- and bike-to-school days. SRTS programming can help teach students how to use the first- and last-mile infrastructure near the mobility hubs to get to school, and how to use the services at the mobility hubs with their families.

Open Streets Events

Open Streets Events temporarily close streets to vehicle traffic and only allow walking, biking, and rolling. These events can promote the use of active transportation and build connections in the community by introducing resources to residents. Jurisdictions can also use these events as spaces for demonstration projects, or active transportation education. For example, the City of Los Angeles hosts CicLAvia and several communities in the San Gabriel Valley host 626 Golden Streets, both of which can include mobility hubs in future events. The mobility hubs can act as break areas for visitors to rest and for vendors to set up booths. Involving the mobility hubs in Open Streets Events also allows residents to learn about the amenities at the mobility hubs and encourages them to use transit more frequently.

Carpool and Vanpool

Carpooling and vanpooling are transportation demand management strategies that can reduce the number of vehicles on the road. Residents can be encouraged to use mobility hub options like car share parking and electric vehicle charging stations. Los Angeles County provides carpooling guidance and resources for joining a carpool, and Metro offers incentives for carpool users like prizes and a guaranteed ride home program, which allows carpoolers to reimburse taxi rides home in case of emergency.

Surveys and Active Transportation Counts

Surveys and active transportation counts should be conducted at and near the mobility hub locations before and after the implementation of a first- and last-mile improvement or transit amenity to gauge if the improvement increased active transportation use. Jurisdictions can conduct surveys and counts before and after a programmatic event. Including surveys before and after the implementation of active transportation infrastructure can also allow residents to provide more detailed feedback about how useful the infrastructure is to them.

Photo credit: ActiveSGV

Bike Rack Sponsorship Program

To help meet the demand for short-term parking at the mobility hubs, each jurisdiction can offer a sponsorship program in which a donor purchases a bike rack and receives a personalized plaque that can be installed on the bike rack. In addition to the costs of the bike rack and the plaque, the donor can also pay for associated installation and maintenance costs.

Bicycle and Public Transit Tours

Bicycle and public transit tours can lead residents and tourists to local and regional destinations, using the infrastructure at the mobility hubs and the active transportation infrastructure nearby. These tours can promote tourism in the area and can be themed to focus on local businesses, events, and historical buildings.

Bike Share for Businesses

Encouraging residents to use bike share can reduce vehicles on the road and help residents make first- and last-mile connections to and from the mobility hubs. Metro offers discounted bike share passes for businesses to encourage employees to bike to work. Metro also offers encouragement programs for businesses to teach employees how to safely ride to work.

Free Transit Days

Metro offers free and reduced-fare transit rides during different events throughout the year like Dump the Pump Day and California Clean Air Day. Continuing these events can encourage residents to try public transit and learn about the resources available to lower fare prices. Metro can use mobility hubs as celebration areas during these events.

Federal and State Funding Sources

RAISE Grants: Previously known as the BUILD and TIGER grant, the RAISE grant funds the building and repair of transportation networks. Available through the US Department of Transportation, the RAISE grant allows sponsors at state and local levels to obtain funding for multimodal, multijurisdictional projects that are more difficult to support through traditional funding initiatives. Applications are due in the spring.

House Transportation and Infrastructure Committee Appropriations: The House Transportation and Infrastructure Committee invites Members of Congress to request funding for projects in their communities. Project funds can be used for planning, final design, and construction projects. Eligible projects include bicycle and pedestrian infrastructure projects that increase access, strengthen multimodal connections, reduce greenhouse gas emissions, and enhance environmental justice.

Safe Streets and Roads for All: This program funds initiatives that prevent roadway deaths and serious injuries and can be used to implement safety infrastructure identified in Safety Action Plans, like Vision Zero. This can include installing pedestrian and bicycle networks, transforming roadway corridors into Complete Streets, and improving the safety of intersections. Up to $1 billion is available each year of the program.
Congestion Mitigation and Air Quality Improvement Program: The annual Congestion Mitigation and Air Quality program provides funding to State departments of transportation, MPOs, and transit agencies to invest in projects that reduce emissions from transportation-related sources and improve air quality. The goal of the program is to reduce congestion, reduce emissions, and maintain economically viable and mobile communities.

Neighborhood Access and Equity Grants: These grants aim to make roads safer for all modes of transportation. The purpose of the grant is to reconnect communities that have highways running through them. Agencies can use these funds to redesign highways for all modes, build trails and bike lanes, provide transit connections, install green infrastructure, reduce urban heat islands, and build safety features.

Highway Safety Improvement Program: Administered by Caltrans, the Highway Safety Improvement Program is offered every one to two years. The program's purpose is to reduce traffic fatalities and serious injuries on public roads, to identify safety risks in the transportation system, and to build layers of safety protection in transportation networks. Projects on any publicly owned road or active transportation facility are eligible, including bicycle, pedestrian, and transit improvements. The program focuses on projects that explicitly address documented safety challenges through proven countermeasures, are implementation-ready, and demonstrate cost-effectiveness.

Carbon Reduction Program: The Carbon Reduction Program is a Caltrans program that funds projects that support a reduction in transportation emissions. Eligible projects include bicycle and pedestrian infrastructure and public transit facilities. Caltrans distributes funding based on population sizes using the 2020 Census.

Office of Traffic Safety Grants: The California Office of Traffic Safety has grant programs that fund projects that protect bicyclist and pedestrian safety to reduce the number of bicyclists and pedestrians killed and injured on roadways, raise awareness about traffic rules and safe driving practices, and provide training and programs for high-risk individuals like children and older adults.

Affordable Housing and Sustainable Communities Program: The vision of the Affordable Housing and Sustainable Communities Program is to make it easier for Californians to drive less by making sure housing, jobs, and key destinations are accessible by walking, biking, and transit. Eligible projects include sustainable transportation infrastructure, such as new transit vehicles, sidewalks, and bike lanes; transportation-related amenities, such as bus shelters, benches, or shade trees; and other programs that encourage residents to walk, bike, and use public transit.

Surface Transportation Block Grants: These grants are used to fund projects that maintain and improve the transportation performance of federal-aid highways, bridges, and tunnels; install pedestrian and bicycle infrastructure,

and; implement transit capital projects. Additional transportation alternatives set-aside funds can fund active transportation and transit access improvements. Funds are distributed by the state to areas depending on population size.

State Transportation Improvement Program (STIP): The STIP is a multiyear capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the Transportation Investment Fund and other funding sources. Funding consists of two components: Caltrans' Interregional Transportation Improvement Program (ITIP) and regional transportation planning agencies' Regional Transportation Improvement Program (RTIP). Pedestrian and bicycle projects may be programmed under ITIP and RTIP. STIP programming occurs every two years. In 2022, STIP added additional funding for active transportation improvements including bike lanes, sidewalks, and transit station improvements.

State Highway Operation and Protection Program: Designed to maintain the state highway system, the State Highway Operation and Protection Program also includes opportunities to address Complete Streets elements and improve pedestrian, bicycle, and transit facilities. Program funds can be used for projects with Complete Streets components like signage, bike parking, bike lanes, pedestrian crossing infrastructure, transit stop improvements, and pedestrian lighting. Funds can also be used for projects that have climate action efforts and provide low-emission transportation choices.

Transportation Development Act Funds: The Transportation Development Act provides funding from State Transit Assistance (STA) and the Local Transportation Fund (LTF). This program funds a variety of transportation programs including for pedestrians, bicyclists, and transit facilities. STA funds can only be used for transportation planning and mass transportation projects, but LTF funds can be used for local street construction and maintenance. The amount of funding is based on sales tax collected in each county. This fund is administered by Caltrans.

Active Transportation Program (ATP): The ATP was created to encourage the use of active transportation through encouragement and safety measures. Eligible projects include infrastructure projects, education, encouragement, and enforcement of non-infrastructure projects that further the goals of the ATP, a combination of infrastructure and non-infrastructure activities, and the development of active transportation plans in disadvantaged communities. Senate Bill 1 stipulates that $100 million of revenues from the Road Maintenance and Rehabilitation Account will be available annually to the ATP. The ATP consolidates existing federal and state transportation programs, including the Transportation Alternatives Program, Bicycle Transportation Account, and State SRTS, into a single program with a focus to make California a national leader in active transportation. Applications are typically submitted in July.

Typical projects funded by the ATP include:

- Safe Routes to School programming
- Safe Routes to Transit programming
- New or improved bicycle infrastructure, including bike lanes and bike parking
- New or improved pedestrian facilities including sidewalks, and crosswalks
- Network links to trails and parks
- Educational and encouragement programming

The goals of the ATP are defined as the following:

- Increase the proportion of walking and

biking trips
- Increase safety and mobility for nonmotorized users
- Reduce greenhouse gas emissions
- Enhance public health
- Ensure disadvantaged communities share the benefits of the program

California Transportation Commission Local Partnership Program: This program provides $200 million in funding from the Road Maintenance and Rehabilitation Account for local and regional transportation agencies that have sought voter-approved taxes, tolls, or fees, which are dedicated solely to transportation improvements. The program provides funding for aging infrastructure, road conditions, active transportation, transit and rail, and health and safety benefits. The funds are distributed through a 40% statewide competitive component and a 60% formulaic component.

Transformative Climate Communities: The vision of the Transformative Climate Communities is to empower communities most impacted by pollution to choose their own goals, strategies, and projects to reduce greenhouse gas emissions and local air pollution. In addition to reducing greenhouse gas emissions, the goals of the program are to fund projects that maximize community health and environmental benefits, avoid displacement, have comprehensive community involvement, and offer technical assistance. Projects can include transit stations and facilities, bike share programs, urban greening, and pedestrian and bicycle infrastructure.

Caltrans Sustainable Transportation Planning Grants: The Sustainable Transportation Planning Grant Program supports transportation planning processes that address local and regional transportation needs and issues. The program offers three types of grants: Strategic Partnerships, Sustainable Communities, and Climate Adaptation Planning. The Sustainable Communities Grant has $29.5 million in funding to encourage local and regional planning that furthers state greenhouse gas emission reduction goals. The Strategic Partnership Grant has $4.5 million to identify and address statewide or regional deficiencies on the State highway system in partnership with Caltrans. The Climate Adaptation Planning Grant has $50 million in funding to identify transportation-related climate vulnerabilities. The overarching objectives to guide grant applications are sustainability, preservation, accessibility, safety, innovation, economy, health, and social equity. Past awarded project types include active transportation, Complete Streets, transit, safe routes, Vision Zero, and emission reduction.

Metropolitan, Statewide, and Nonmetropolitan Planning: This federal source provides funding for multimodal transportation planning in metropolitan areas. Funds can be used for planning activities that support the economic vitality of a metropolitan area, increase the safety and security of transportation systems, increase mobility, protect the environment, or connect transportation systems.

Pilot Program for Transit-Oriented Development Planning: This program's goal is to improve America's public transportation system by providing funds to integrate land use and transportation planning. Funding is available for projects that improve multimodal transportation, accessibility, and pedestrian and bicycle access to transit and enable mixed-use development near transit.

Clean Mobility Options: Administered by the California Air Resources Board, the Clean Mobility Options grant funds projects like bike share, scooter share, car share, electric vehicle charging stations, infrastructure for clean mobility, and community transportation needs assessments. Funds are available for disadvantaged communities in the state.

Local and Regional Funding

SCAG Sustainable Communities Program: SCAG's Sustainable Communities Program has provided resources and assistance to jurisdictions to complete local planning efforts. The program provides resources to support active transportation and multimodal efforts and sustainability, equity in transportation planning, smart cities, and mobility innovations, reductions in motorized VMT, and reductions in greenhouse gas emissions. It also supports quick-build projects and network visioning to help jurisdictions install active transportation networks. Awards of up to $500,000 are available for active transportation-focused plans.

SCAG Local Community Engagement and Safety Mini-Grant: SCAG created this mini-grant program to increase the safety of those most harmed by traffic injuries and fatalities. SCAG awards grants community organizations, nonprofits, and social enterprises with a focus on organizations that include members of disadvantaged or underinvested communities. Mini-grants fund projects that educate mobility users on safe practices, increase access to safe routes for users and envision safety improvements to transportation infrastructure that prioritizes vulnerable users. Projects include safety demonstration projects, community events, and safety campaigns.

Community Emission Reduction Grant: Offered by the Los Angeles Department of Water and Power, this grant is given to nonprofits for projects that work to improve air quality and work to counter the climate crisis. The department offers grant writing services and partners to help the organization complete the grant. Up to $500,000 is available for each project, which can include active transportation projects. One grant is awarded annually to one nonprofit in each of Los Angeles' 15 council districts.

Measure W: Measure W is a Los Angeles County parcel tax that collects approximately $300 million per year. This measure funds upgrades to the County's water system, but can also include funding for projects that capture and treat stormwater, such as green infrastructure.

Measure A: Measure A, the Safe, Clean Neighborhood Parks, and Beaches Measure, can fund parks and green spaces in Los Angeles County. Funds can also be used for water conservation projects, trails, and accessibility projects.

Measure M: This sales tax measure funds projects to ease traffic, repair streets, and sidewalks, expand transit, and subsidize transit fares. This can also include implementing bicycle and pedestrian facilities and upgrading the technology at transit stations. Some project agencies may consider a WAM strategy in which they use measures W, A, and M to fund their projects.